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INDIANA ROOM

HOOSIERS START A RAILROAD

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THE MONON

By S. H. Holbrook

Hoosiers Start A Railroad

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From THE STORY OF AMERICAN RAILROADS
by Stewart H. Holbrook.
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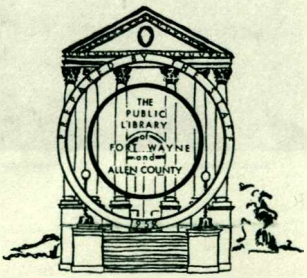

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One of a historical series, this pamphlet is published under the direction of the governing Boards of the Public Library of Fort Wayne and Allen County.

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FOREWORD

In 1847 a group of Hoosiers organized the New Albany & Salem Railroad, one of Indiana's pioneer railroads.

The following publication, recounting the building, growth, and subsequent history of this railroad (the present-day Monon Route), originally appeared as chapter 9 of THE STORY OF AMERICAN RAILROADS by Stewart H. Holbrook. The volume was published by Crown Publishers, Inc., in 1947. The publisher has graciously granted permission to reprint.

The Boards and the Staff of the Public Library of Fort Wayne and Allen County present this account in the hope that it will prove interesting and informative to Library patrons.

THE stock certificates of the New Albany & Salem Rail Road Company were handsome and also rather chaste, when compared to the flamboyance of most railroad printing of the day, which was the middle of last century. There was, of course, a picture of a train of cars, for no symbol of the nineteenth century was more potent than one of a locomotive with its brigade of clattering boxes on wheels. The particular train of the New Albany & Salem is just rounding a graceful curve of track, the 4-4-0 locomotive sending up from its stack a pleasing cloud of smoke that curls back over the coaches and so on into the distance. The engine is hauling five passenger cars. The tender is obviously piled high with cordwood. The grade looks pretty good. The train is passing through a modest forest, while far in the rear are high hills, almost mountains, of a size one does not ordinarily think of in relation to Indiana. But then, Indiana has always been a place for artists, either of brush or pen, and they are men who hold license to see things with their own eyes and not as described by ordinary people.

The New Albany & Salem was an Indiana railroad of purest genealogy out of which was to grow the present Chicago, Indianapolis & Louisville, commonly and with much greater felicity known as the Monon Route. It sprang from the desire of Salem citizens to connect their village with the nearby Ohio River at New Albany; and also, in the mind of at least one Salemite, to connect the Ohio River with the Great Lakes. The founding fathers believed, after a bit, that such a road would make both Salem and New Albany vast cities of the Midwest by developing a traffic in freight and passengers all along its entire length of nearly 300 miles. The belief was typical of the time, a time when the very name of railroad was sheer magic. There was nothing, absolutely nothing, that the steam cars could not accomplish in the way of improving a region.

When the New Albany & Salem was incorporated in 1847, the former place had a population of 8,181 and was the largest city in all Indiana.

Salem was a mere hamlet of 2,223 persons, and its citizens thought—oddly enough, perhaps—that by connecting their town with the great river port of New Albany, its own growth would be assured. This explains the fact that most if not all of the early stockholders were Salemites.

In all such groups there is always one leading spirit, and he who was to lead the New Albany & Salem through its first difficult years was James Brooks, a State of Mainer born in Orington who was thirty-seven years old when he incorporated the railroad. His business was running a store in Salem. It was he who intended the new road to run not only between the two towns of its corporate title, but on and on up through the middle of Indiana until the tracks came up short on the Lake Michigan shore, almost exactly 288 miles from New Albany.

Brooks and his fellow "commissioners," as they were called, managed to raise sufficient money to begin construction early in 1848. Brooks was elected president, and along with that job he appears to have been forced by circumstances into filling several other positions, one of which was the difficult work of persuading Hoosier farmers to allow right-of-way across their lands without asking damages ruinous to the new company. He seems to have been pretty good at this. His policy, which he defined in a number of letters, was that if the railroad damaged a man by building the road over his farm more than the farm was benefited by having the railroad there, he would pay such damage. But, however, if the so-called damage left the farm of more value than before the arrival of the rails, then, said Brooks in his best judicial manner, "we think he is not entitled to any damage as we leave him better off than we found him, notwithstanding we may use a few acres of his land in doing it." Brooks also believed, and his belief was virtually dogma, that iron rails almost automatically did a farm more good than harm.

Two years after beginning of construction the New Albany & Salem had completed 27 miles of road and was the third longest railway in the state, the two longer being the gigantic Madison & Indianapolis, with 88 miles of road, and the Indianapolis & Belfontaine with 28 miles. The mileage for the entire state totaled 212. The New Albany built its first track on ties laid four feet apart and connected by stringers imbedded in notches in the ties. The rails were simply bar iron, held in place by big spikes driven through the center and their heads countersunk in order not to project above the rails.

It was presently discovered that because the ends of the rails were connected by tongue and groove, there was not enough space to allow for the expansion caused by changes in temperature. The bars heaved and writhed, loosening the spikes. The spikes gave way, the bars spread, and locomotives were derailed. The T-rail was already being used on all of the better-financed roads which were publicizing the sinister menace inherent in bar rails in order to scare passenger traffic off such murderous contrap-

tions. President Brooks was not slow to see the disadvantages of bar iron, and soon he was replacing his own tracks with T-rail made by the Crescent Iron Manufacturing Company of Wheeling, Virginia. This, he told his directors, would relieve the New Albany from the "bad name" of running on bar iron which, he said, "has had a very unfavorable influence upon our passenger business." He added that agents of competing roads had been able, by a series of gross and unspeakable misrepresentations, to alarm passengers and "keep them off our line."

President Brooks was a man of broad vision. He went ahead to get a sort of roving charter from the State of Indiana, a remarkable document that gave the New Albany & Salem the right to extend its line to "any other point or points" in the state. This charter, says the New Albany's historian, Frank P. Hargrave,* was probably unique in American railroad history. The road made the most of it, too, and by extension of its own line and the absorption of others, it at last reached the Great Lakes in 1854, connecting with the Michigan Central at Michigan City, Indiana, on the shore of Lake Michigan. The line had now reached the climax Brooks had planned for it: It started at New Albany, ran northwesterly to Salem, then almost directly north through Mitchell, Bloomington, Gosport, Greencastle, Crawfordsville, Lafayette, Monon (then called Bradford), and straight up through Starke and Laporte Counties to the lake.

Pioneer railroads such as the New Albany & Salem had to devise their methods of operation as they went along, and the primeval Hoosiers were equal to the task. Their first locomotives were flatteringly named for towns along the line, although after a few years classical mythology was given a trial and the iron horses appeared with *Apollo, Mercury,* and *Achilles* on their tenders or name boards. Then came a period when the engines were *Rover, Rusher, Samson, Tornado, Meteor,* and even *Rattler.* Each engineer was assigned a particular engine, which he ran so regularly as to feel a sense of ownership. It was common for an engineer to stay with his engine during all of the time required for a round trip, which might be as little as two or as much as six days.

Wood was, of course, the fuel used. The company figured it could run an average train about 28½ miles on one cord of four-foot wood; and the wood could be cut, delivered and piled in the tender for $1.41 a cord. Wood-up stations were established at regular intervals of from 20 to 25 miles, and here farmers delivered the wood in four-foot lengths. The wood-up at Lafayette was the largest on the line and remained in use until after 1870. It held one hundred cords. To cut the sticks once more for easy handling by firemen, the New Albany's ingenious mechanics de-

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* See his *A Pioneer Indiana Railroad,* Indianapolis, 1932.

vised a flatcar with a stationary engine aboard, rigged to a circular saw. This was called *The Rooster,* and a picture of a cock appeared in full color on the car's sides. *The Rooster* was hauled up and down the line, its crew making little ones out of big ones. It became an institution.

The early locomotive stacks were not covered with any screen, and naturally gave forth a continuous shower of sparks, causing many fires in grass and forest, for which the company was held responsible. The sparks were also hard on both passengers and employees. Charles Bane, an old hogger of the New Albany, related that one could always tell a member of an engine crew of that day by the holes burned in the back of his vest.

Water for the locomotives was taken at likely places and was poured into the locomotive tank by a bucket brigade of engine and train crews. This system was followed by a pump worked by horse power, the horse being harnessed to a long pole and walking in a circle. Gravity water tanks gradually came into use as the company could afford their construction.

The first passenger cars cost $2,000 apiece and seated from fifty to sixty persons. The lamps burned lard oil, and were continuously smoking. The task of tending them was given to the trainboy, a sort of forerunner of the news butcher. One of the first trainboys on the New Albany was W. W. Garrott, 13 years old in 1856 when he made his first run. It was a dangerous job for a youngster. The cars were of various heights and were coupled together with three great links of chain, and it was necessary in getting from one coach to another to make a considerable leap. Young Garrot had to do this while carrying a basket of fruit and candy, or perhaps a bundle of newspapers. He was so sure-footed, however, that Conductor Rush Prosser permitted the lad to run regularly on his train. Another of Trainboy Garrott's duties was to supply drinking water to passengers. A barrel of ice water was carried in the baggage car and every hour or so Garrott had to fill a two-gallon can that had a long spout, and with this and two tin cups make his way through the train, cooling the throats of adults and of children, the latter never so thirsty as when traveling on the steam cars.

For a number of years one car served for baggage, mail, and express. The last car on the train was the Ladies' Car, and into this no male dared enter unless accompanied by a woman, who might or might not be a lady. All other males had to sit in the smoker, whether or not they smoked. All passenger cars were heated by round stoves fastened to the wall to prevent turning over in case of derailments, which apparently were many. The trainboys had to keep the stoves going and the woodboxes filled.

There were no wrecking cars in those days. Into a long box hung to the underside of each New Albany baggage car went chains, ropes, crowbars, hammers and such, for use in emergencies. Conductors were to open this "switch box" just before starting a run to make certain that no one had

. . . it was necessary to make a considerable leap . . .

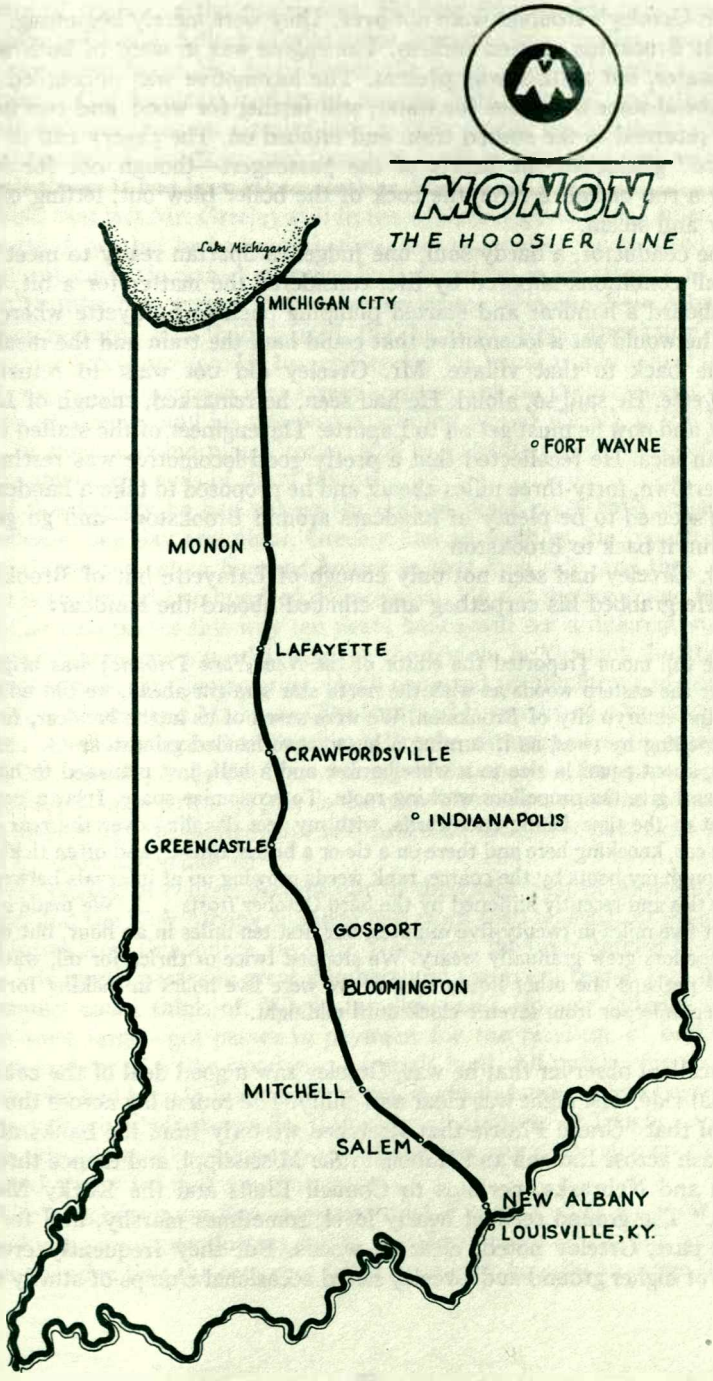
made off with the tools. The conductors were paid $83.33 a month, the brakemen $30. The scale for engineer and fireman was about the same. The trainboy got no regular wage, but Garrott recalled that he used to make as much as $40 a month in commission on sales. He did not mention any side-lines, so perhaps he was not working for a news agency but was on his own.

Like many another early road, the New Albany was often hard put to meet the payroll. At such times it was the custom to issue meal and lodging tickets. The regular paymaster was authorized to redeem these in cash when presented by anyone not an employee of the road but not when offered by employees.

The train crews on the New Albany were not slow in finding means to add to their wages. It soon became a custom for them to buy berries, eggs, and chestnuts along the way and sell them in the larger towns at a profit. The company did not object, at least not for many years, and the business of certain trainmen became so extensive as to call for newspaper comment. In 1857, for instance, the *Review* of Crawfordsville remarked it was time the Postmaster General of the United States added an extra car to make room for the mails that were being crowded out by heavy shipments of eggs and butter incident to the produce business being carried on by mail clerks and baggage men on the New Albany & Salem Railroad.

Operating schedules were set up in the early years but were seldom met. Horace Greeley wrote a vivid description about delays on this railroad in a letter to his paper in New York. He was on a speaking tour, this time on Temperance, and planned to leave on a certain train from Lafayette to get to Laporte, where another lecture was due. This was in October of 1853. Greeley went to what he thought was the New Albany & Salem Railroad station in Lafayette, and there he waited a long time only to learn that the train left from another depot, the one on Salem Street. He got to this depot just in time to see the smoke of the departing train. So, he remained overnight in Lafayette, and next day he caught the train. It was, one judges, quite a train:

> I was in ample season (says Greeley), but the train that was to start at ten did not actually leave until noon, and then with a body entirely disproportionate to its head. Five cars closely packed with hogs, five ditto with wheat, two ditto with lumber, three or four with live stock and notions returning from the fair, and two or three cattle cars containing passengers, formed entirely too heavy a load for our asthmatic engine which had obviously seen its best days in the service of other roads before that from New Albany to Michigan City was constructed. Still, we went ahead, crossed the Wabash, passed the Tippecanoe Creek Battle ground, ran our engine partly off the track, and got it on again; and by three o'clock had reached Brookston, a station fourteen miles from Lafayette, with a fair prospect of traversing our ninety odd miles by the dawn of Monday morning.


MONON
THE HOOSIER LINE
Lake Michigan
MICHIGAN CITY
FORT WAYNE
MONON
LAFAYETTE
CRAWFORDSVILLE
INDIANAPOLIS
GREENCASTLE
GOSPORT
BLOOMINGTON
MITCHELL
SALEM
NEW ALBANY
LOUISVILLE, KY.

Mr. Greeley's troubles were not over. They were merely beginning. The halt at Brookston seemed endless. The engine was in want of both wood and water, but neither was present. The locomotive was uncoupled and run ahead some five miles for water, still farther for wood, and two hours later returned to the stalled train and hitched on. The cheery call of "all aboard" gladdened the hearts of the passengers—though not for long. After a run of half a mile, the cock of the boiler blew out, letting off all water and steam.

The conductor, a hardy soul, one judges, a Spartan ready to meet any and all conditions imposed by life, considered the matter for a bit, then got aboard a handcar and started pumping back to Lafayette where, he said, he would get a locomotive that could haul the train and the disabled engine back to that village. Mr. Greeley did not want to return to Lafayette. He said so, aloud. He had seen, he remarked, enough of Lafayette, and now he must get on to Laporte. The engineer of the stalled train had an idea. He recollected that a pretty good locomotive was resting at Culvertown, forty-three miles ahead, and he proposed to take a handcar—there seemed to be plenty of handcars around Brookston—and go get it and run it back to Brookston.

Mr. Greeley had seen not only enough of Lafayette but of Brookston too. He grabbed his carpetbag and climbed aboard the handcar:

> The full moon [reported the editor of the *New York Tribune*] was bright over the eastern woods as with the north star straight ahead, we bid adieu to the embryo city of Brookston. We were seven of us in the handcar, four propelling by twos, as if turning a heavy, two-handed grindstone . . . the car, about equal in size to a wheelbarrow and a half, just managed to hold us and give the propellors working room. To economize space, I sat a good part of the time facing backwards, with my feet dangling over the rear of the car, knocking here and there on a tie or a bridge timber, and often tickled through my boots by the coarse, rank weeds growing up at intervals between the ties and recently stiffened by the hard October frosts . . . We made our first five miles in twenty-five minutes, our first ten miles in an hour, but our propellors grew gradually weary. We stopped twice or thrice for oil, water, and perhaps one other liquor so that we were five hours in making forty-three miles, or from seven o'clock until midnight.

Excellent observer that he was, Greeley saw a good deal of the country on that ride. The night was clear and chilly. The course lay across the east end of that "Grand Prairie that stretched westerly from the banks of the Wabash across Indiana and Illinois to the Mississippi, and thence through Iowa and Nebraska, perhaps to Council Bluffs and the Rocky Mountains." The ground seemed nearly level, sometimes marshy, and for the most part, Greeley noted, clear of woods. But they frequently crossed belts of higher ground and Greeley noted occasional clumps of sturdy oaks

—isles of timber in the prairie sea. He saw four prairie fires, burning brightly but lazily. A flock of wild geese flew over, murmuring. The editor saw one great heron rise from beside the track and fly heavily over the marshes. The handcar frightened several wild animals, including one skunk and one opossum. Greeley took it all in, and at last came the climax. They reached Culvertown and found that the engine they had come for wasn't there. It had been taken north to Michigan City.

Well, that left Mr. Greeley still in the wilderness, still many miles from Laporte. Now that he had got his teeth into the matter, he resolved to go on at any cost. He waked everyone in Culvertown in an attempt to get a team to take him north. There were no teams. But the New Albany & Salem engineer who had bossed the handcar from Brookston liked Greeley's determination. He loaned Greeley the handcar and helped him to find two Culvertown men who agreed to pump the rig the remainder of the night. So Greeley and his two men struck out at one o'clock in the morning. At nine next morning Greeley was in Laporte, ready to speak that afternoon on the evils of dram taking.

Of the country he had passed through on what must have seemed an extremely long day and night, Greeley had an opinion. He reported that he had seen scarcely a hundred houses in that long ride, and they would have been dear at two hundred dollars each. He did see some fine timber, and "he who passes this way ten years hence will see a different state of things." There was a good future for the region, he thought. But he also remarked that the "financiering which conjured up the means of building the New Albany and Michigan City Railroad is worthy of a brazen monument." One wonders what President Brooks thought of such a remark.

If Mr. Greeley rode the New Albany & Salem on a free pass he must have indeed been irritated, just as the man who sees a show on a free pass and finds it bad is irritated. But it is probable the editor paid cash for his trip by train and handcar.

Free passes, of course, became one of the early evils of American railroads, and the New Albany & Salem had more than its share of difficulties and losses from this source, says Mr. Hargrave, the line's careful historian. The line issued passes in great numbers and for every reason that human ingenuity could think of. Whole families—and Hoosier families of the time were large—got passes in payment for the privilege of building a water tank or of piling wood on a farmer's land. All public officials, even those who had been in but were now out of office, expected free passes as a prerogative of their status. So did nearly all shippers of freight; and one such, who claimed he shipped as many hogs as any other men on the line, wanted a pass for that specific reason.

The knockdown on fares appears to have been discovered at an early date by the road's conductors and to have been followed intently and with such abandon that the company felt it necessary to issue an order that all

passengers must purchase tickets before they boarded a train. Tickets for excursions were sold at a reduced rate, and excursions were one of the many ways in which the company sought to raise cash. Salem was the first town to which these trips were made. Later, the favorite excursion points were Bedford, Bloomington, Lafayette, and Michigan City on the lake. These trips were extremely popular, and the crowds grew so rapidly, the company could not always muster sufficient rolling stock to carry them all. It pressed coal cars into service, erecting over them a frame and covering it with green leaved branches of oak and other trees. Almost every political meeting called for a steam-car excursion, plus an ox barbecue.

Both the Adams and the American Express Companies were using the New Albany & Salem by 1853. They were allowed space not to exceed fifty-six square feet in the baggage car, and all express had to be in the care of an express-company agent, who was given passage at half fare. Mail service on the line was established in the same year, and the mails went into the baggage car along with the express—and the various products of the train crews engaging in farm produce as a side-line.

During the first six months of operation the government paid the company $5,759 for mail service, which came in mighty handy. Telegraphic service along the line was not available until 1859, when the railroad company made a contract with a concern that was soon to become a part of the Western Union. The New Albany & Salem was given exclusive control of the telegraph line for $9,000, though the Western Union reserved the right to do all of the paid business at four of the principal stations.

The New Albany & Salem managed to make a small yearly profit from the time it was opened until the end of 1856. But this paper profit was hardly a real net; the company owed a good deal of cash in back wages to its employes. President Brooks and his directors were worried enough, and with good right, when the panic of 1857 made its presence known. Brooks was retired and the road put in charge of a trustee. It seems a sad end for the man who thought up and largely built Indiana's first railroad from one end of the state to the other; yet, a survey of all early American railroads would probably show that few of the founding fathers of any line survived longer than the first bankruptcy and reorganization. When the real builders, such as Brooks was, had served their purpose, then the bankers, the financiers, stepped in and took over. It seemed almost an immutable law.

The reorganized New Albany & Salem became the Chicago, New Albany & Louisville, and it appears to have done little better under its new name and trusteeship. Even the Civil War, which saved at least temporarily so many ailing railroads, failed to help this one. In 1870 it was thrown into involuntary receivership. In 1897 another reorganization changed the style of the road to Chicago, Indianapolis & Louisville, the

official title it still retains, although it is popularly known as the Monon Route. Just where this name came from is doubtful. Historian Hargrave says that some hold it to be a Potawatomi Indian word meaning "to carry." Another source has it "swiftly moving," a phrase that might make Horace Greeley's shade shake with amusement.

It is more than possible that a part of one of America's great books was written on a Monon train. In 1874 General Lew Wallace was living in Crawfordsville, a Monon town, engaged in writing *Ben Hur*, and though he finished the novel in Santa Fé, where he was serving as territorial governor of New Mexico, he often related that he had composed portions of the book while riding the cars between Crawfordsville and Indianapolis. Specifically, he related that he composed Tirza's song, "Wait Not," while on "a belated train" between those two cities.

Until someone can prove differently, let part of the glory of General Wallace and *Ben Hur* shine upon the honorable rails of the Monon Route. Anton Anderson, assistant chief operating officer of the Monon in 1946, told me he would like to believe that *Ben Hur* was written in part in a Monon coach, and that there is an even or better chance that it was. "General Wallace," he admits, "may have ridden horseback from Crawfordsville to Colfax, then taken a train on either one or the other lines which are now the New York Central and the Pennsylvania to Indianapolis. Or, again, he may have taken the Monon to Lafayette or Greencastle, then one of the other lines to Indianapolis. We do know that he used to come often over the Monon to Shelby, where he did a lot of fishing and hunting along the Kankakee River."

In any case, the original notes of both General Wallace's *Ben Hur* and his earlier *The Fair God* are in the gallant old soldier's library in Crawfordsville, a Monon town, I repeat, and may be seen by interested visitors. There may be no great mountains along the Monon, yet those pencilled notes for *Ben Hur* constitute sections of one of the mountains in our literature, for it was General Wallace's great book that was the first novel to break through the rustic and village opposition to popular fiction. *Ben Hur* rode that gilded chariot right through the front door to enter the homes of Hard-Shell Baptists and Methodists, and to an eager welcome. Hundreds of thousands of back-country Americans learned the charms of fiction through *Ben Hur*. (*Uncle Tom's Cabin* doesn't count, because it was not considered a novel at all but a Christian tract dictated by a Northern Congregational God.) For this reason, if for no other, Carl Van Doren has set *Ben Hur* down as an epochal work, a book that did something to change the thinking of many Americans. General Wallace lived most of his life in Crawfordsville. He worked there, died there. Let some now forgotten coach of the Monon stand as shelter for the traveling author of *Ben Hur*. And let the Monon name a locomotive for him.

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A Hoosier Centenarian

"The Monon"

JOHN W. BARRIGER

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Community Affairs File

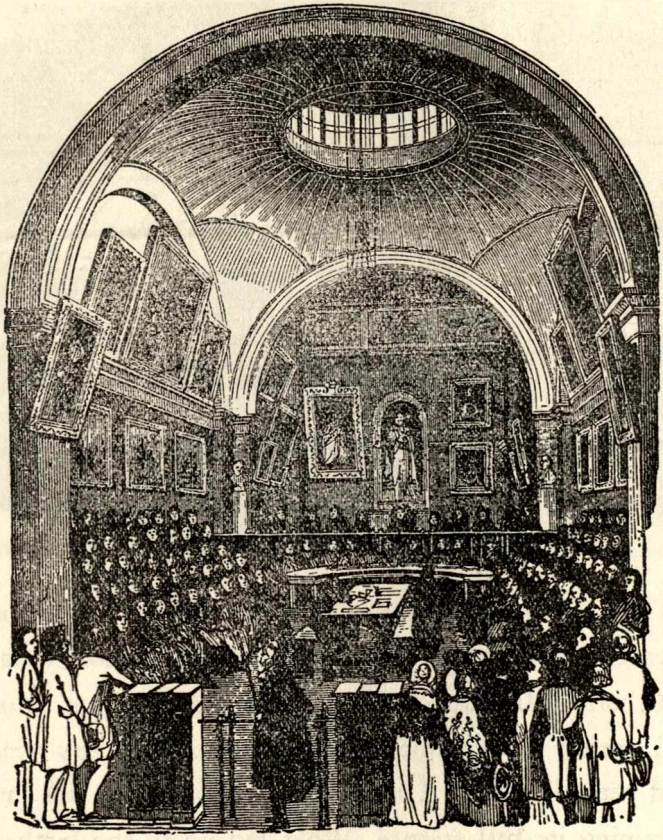
"Were American Newcomen to do naught else, our work is well done if we succeed in sharing with America a strengthened inspiration to continue the struggle towards a nobler Civilization— through wider knowledge and understanding of the hopes, ambitions, and deeds of leaders in the past who have upheld Civilization's material progress. As we look backward, let us look forward."

—CHARLES PENROSE
Senior Vice-President for North America
The Newcomen Society of England

This statement, crystallizing a broad purpose of the Society, was first read at the Newcomen Meeting at New York World's Fair on August 5, 1939, when American Newcomen were guests of The British Government

"Actorum Memores simul affectamus Agenda"

A HOOSIER CENTENARIAN—*"THE MONON"*



"It is *of a State* rich in the traditions of its people, vibrant in its energy to go forward in American Life and in American Progress, and *of a railroad* uniquely a part of the history and development of that State—it is *of these two*, inseparably linked together, that I wish to speak: *upon this 100th Anniversary*."

—JOHN W. BARRIGER

"The railroad, distinctly a Hoosier institution, whose Centenary American Newcomen happily honors today, was born in Indiana on June 8, 1847, during that colorful period of dynamic expansion when the sixty-year-old republic of the United States of America was just attaining its full stature. What led up to the birth of this railroad, what ambitions for its useful and important service inspired its founders, what has been its destiny—into these we shall inquire."

—John W. Barriger

A Hoosier Centenarian

"The Monon"

JOHN W. BARRIGER

MEMBER OF THE NEWCOMEN SOCIETY

PRESIDENT

THE CHICAGO, INDIANAPOLIS & LOUISVILLE RWY. CO.

"THE MONON ROUTE"

CHICAGO

THE NEWCOMEN SOCIETY OF ENGLAND

AMERICAN BRANCH NEW YORK

1947

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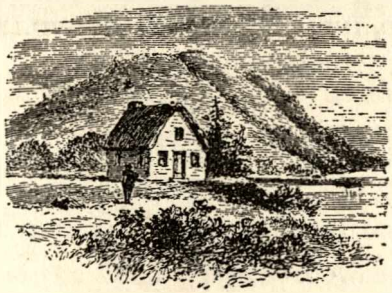
First Printing: August 1947
Second Printing: August 1947



This Pilgrimage Address, based upon early history of "The Monon" and upon contemporary sources of life in Indiana a century ago, was delivered during the "1947 National Pilgrimage" of The Newcomen Society of England, celebrating the Centenary of "The Monon" and held at French Lick, Indiana, U.S.A., on August 6th-7th, 1947

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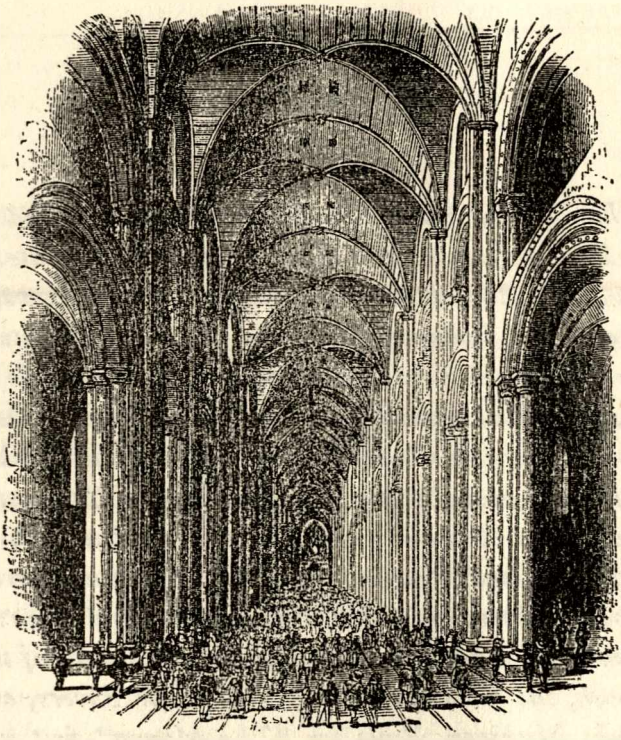

"It must be remembered that while the life span of American history embraces a little more than four and one-half centuries, but one-third of that entire period has passed since the United States became a nation.

"While our institutions, character, and traditions were forged in the crucible of the first three hundred years, the economic and industrial development of the continent awaited the arrival of the railroads to unlock its vast treasure of internal resources and open wide the land for settlement."

—JOHN W. BARRIGER

Biographical Sketch of The Author

INDIANA *has colorful history! Old Vincennes was settled as early as 1702; Fort Wayne in 1794. In 1813, the seat of State government was at Corydon, in Harrison County; in 1821 it was moved to a place named Indianapolis by the Indiana Legislature. The "Hoosier State" is rich in picturesque early history. The Wabash River has figured in dramatic story and song. Upon Lake Michigan, great steamers enter Indiana ports of Gary and Indiana Harbor; iron ore is brought for steel mills of the Calumet region. Commerce and trade, and industry and agriculture, have been backbones of Indiana's economic past—and transportation has been a key to her consistent prosperity during a century. Before railroads came, men relied mostly upon navigation upon waters of the Ohio, the Wabash, the White, and the Whitewater Rivers, and upon broad Lake Michigan. Rails for "The Monon" first were laid when James K. Polk of Tennessee sat in the White House and James Buchanan of Pennsylvania was Secretary of State. The War with Mexico was just ended by the treaty of Guadalupe Hidalgo. Internal improvements in canals, highways, and rail roads were being pushed forward enthusiastically in many States of the Union. Then was "The Monon" born! Not any other member of American Newcomen could do better justice to the history and influence of this long-established, energetic, and useful railroad than* JOHN WALKER BARRIGER *of Chicago, President of The Chicago, Indianapolis & Louisville Railway Company, namely: "The Monon." Few, if any, rail executives know as well both the history and the operations of the Class I railroads throughout the United States of America as does he. And, in this Newcomen Address, he is writing of his own system. Native of Dallas, Texas, graduate of the Massachusetts Institute of Technology, in the Class of 1921, first Newcomen Lecturer at Princeton University, Mr. Barriger*

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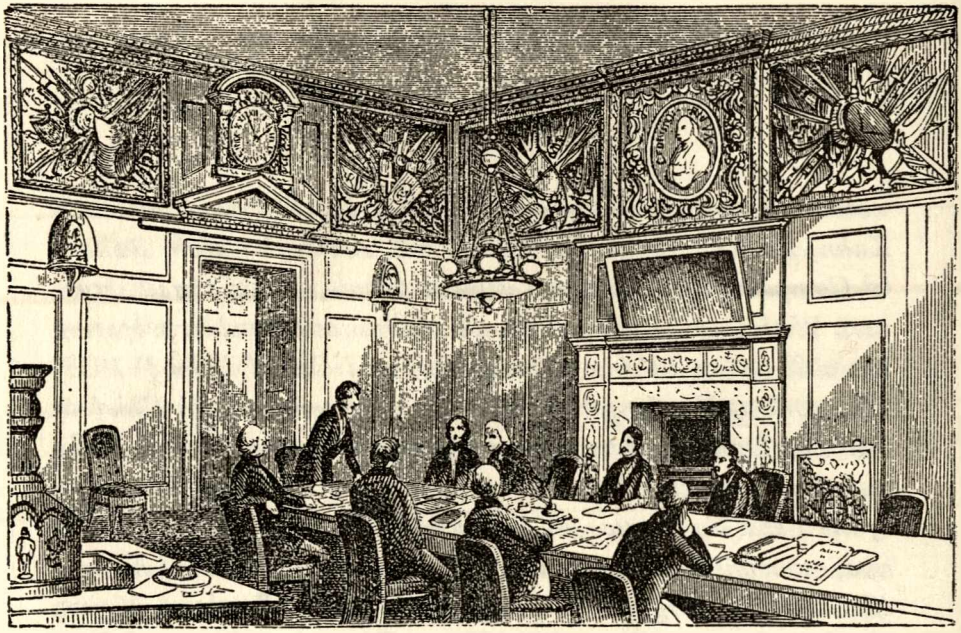
was with The Pennsylvania Railroad during 10 years; then with Kuhn, Loeb & Company, New York, and with Calvin Bullock & Company, Denver, in investment finance related to rail securities. With F. H. Prince of Boston, he was associated in preparing the well-known "Prince Plan of Railroad Consolidation," 1933. His work at Washington long will be remembered as Chief of Railroad Division, Reconstruction Finance Corporation, where he was closely associated with The Hon. Jesse H. Jones, Chairman of the Texas Committee, in American Newcomen. Railroad executive, economist, transportation analyst, author, student of history, Mr. Barriger delighted American Newcomen at Portland, Maine, in 1944, by his brilliant: "Sir Henry Thornton—Pioneer." Former Treasurer of the Washington Committee in this international society, Mr. Barriger today is a Vice-Chairman of the Indiana Committee, in The Newcomen Society of England.



My fellow members of Newcomen:

EVENTS OF 1846 stamped it as *the Year of Decision* in the final territorial expansion of the domestic domain of the United States of America.

The former Republic of Texas had just been added to the empire west of the Mississippi, acquired from France by the Louisiana Purchase of 1803. The Oregon Boundary Dispute was settled on June 15, 1846 by a treaty with Great Britain which recognized the claim of the United States to the vast lands lying west of the Continental Divide, between the 42nd and 49th parallels of latitude.

The Mexican War began on April 11, 1846 and ended with the ratification of the Treaty of Peace by the United States Senate on March 10, 1848. Through payment of $15,000,000, the United States obtained the vast area south of the 42nd parallel of latitude and west of the Texas Annexation down to the Gila River and the present southern limits of California.

These three great territorial acquisitions completed, in this brief compass of time, the forward surge of this Nation to the extent now embraced within all of its forty-eight States, except for the "Gadsden Purchase" from Mexico in 1853.

In this way, the United States fulfilled its manifest destiny to become a nation *of transcontinental proportions.* Its already well settled areas east of the Alleghenies were bursting at the seams to colonize and develop these new territories and to enlarge foreign trade.

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The railroad, distinctly a Hoosier institution, whose Centenary American Newcomen happily honors today, was born in Indiana on July 7, 1847, during that colorful period of dynamic expansion when the sixty-year-old republic of the United States was just attaining its full stature. What led up to the birth of this railroad, what ambitions for its useful and important service inspired its founders, what has been its destiny—into these we shall inquire.

It must be remembered that while the life span of American history embraces a little more than four and one-half centuries, but one-third of that entire period has passed since the United States became a nation.

While our institutions, character, and traditions were forged in the crucible of the first three hundred years, the economic and industrial development of the continent awaited the arrival of the railroads to unlock its vast treasure of internal resources and open wide the land for settlement. The railways, then, through private enterprise, developed North America with phenomenal rapidity; and in so doing transformed the United States from a weak nation into one of the great powers of the Earth.

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Railway history in this country begins in 1827-29. The story belongs to the Baltimore & Ohio and the Delaware & Hudson Railroads. The separate chapters have been eloquently told to Newcomen by two of its most distinguished and scholarly members, the late Lenor Fresnel Loree, the American Founder, and Colonel

Roy Barton White, who compliments us by his presence here today.

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However, the railroads were still very new and only a few thousand miles of primitive track had been built in the more populous States to the east and south, when a few enterprising men in southern Indiana decided in 1847 that the two great waterways, Lake Michigan and the Ohio River, which well served the State's extremities, must be linked together by a railroad, in order to accelerate the quick and adequate settlement of its fertile prairies and commercial development of its hillside forests.

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The railroad which we now affectionately call "*The Monon*," is so vitally interlaced with the development of the State of Indiana that we must digress to summarize significant dates and events which will serve as a background of its status in 1847, too.

When the United States of America was formed in 1787, the area west of Pennsylvania, north of the Ohio River and east of the Mississippi River, except for the "Connecticut Reserve" along the south shore of Lake Erie, was organized as the "Northwest Territories."

In 1800, that portion which lay west of the present Ohio-Indiana boundary, but extended on north through Michigan to Canada, was separately administered as Indiana territory, from Vincennes, as the territorial capital. Formation of Michigan territory in 1805 and Illinois territory in 1809 led to revision of the boundaries of the Indiana territory to compress it within the present area of the State.

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The capital was moved to Corydon in 1813. It is now a little known town, located but a short distance west and south of the present city of New Albany. Indiana was admitted to Statehood on December 11, 1816. Corydon continued as the capital, but the seat of State government was moved to Indianapolis in 1820.

Present-day Americans are so accustomed to associating Indians with the west that one is apt to overlook the fact that all parts of North America were once the domain of the Red Man.

The very name of this great State—*Indiana*—attests forever its Indian origin and heritage.

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Every State in the Union and Province of Canada has its decisive chapter of early history which marks the end of Indian supremacy and the first onrush of white colonization in complete safety from attack or resistance.

That momentous event occurred in Indiana on November 7, 1811, when the territorial governor, General William Henry Harrison, overwhelmingly defeated an onslaught by the Shawnee Indians, led by the brother of their great chief, Tecumseh, who was known as "The Prophet." This decisive battle occurred on high ground above the Wabash River a few miles north of Lafayette, at the site of a present town appropriately known as Battle Ground. The *Monon* runs alongside of this national shrine, which is commemorated by a State Park that shelters a 92-foot monument to its victor.

The Battle of Tippecanoe contributed so greatly to General Harrison's prestige that he successfully campaigned for the Presidency in 1840 with the memorable slogan of "Tippecanoe and Tyler, too."

Unfortunately, this Ninth President of the United States contracted a cold during the course of his inaugural ceremonies which culminated in his untimely death soon after.

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The development of facilities of trade and commerce was a most pressing internal economic question confronting the United States and its component political subdivisions throughout the first century of its existence. Roads and canals afforded the only means of commercial access to vast areas not immediately contiguous to natural navigable waterways, until the railways began to thread their way west.

The prevailing deficiency of private capital, particularly in more sparsely settled States, led to State financing of early canal and highway projects, usually with unhappy results.

In 1836, Indiana inaugurated an ambitious plan to build roads, canals, and railways within its area. Three years later, the State was so burdened by $13,000,000 of debt incurred for these purposes that it was unable to bring its plans to completion; and later sought, by an Act of 1842, to dispose of unfinished works in a manner that would permit them to be completed by private capital.

A group of *seven enterprising residents* of Salem and New Albany, under leadership of James Brooks of the latter city, met in the town of Providence, now the *Monon* station of Borden, on May 20, 1847, to take necessary steps to organize the New Albany and Salem Railroad. Its function would be to acquire, in accordance with the Act of 1842, the right-of-way and unfinished work of the macadam road projected by the State between New Albany and Crawfordsville, although the immediate goal of the railway was Salem, 35 miles away, which thereby would be brought into direct communication with the Ohio River. New Albany, at that time with 7,000 people, was the largest city in the State and, like its more populous neighboring Kentucky city of Louisville, owed its location and growth to the falls of the Ohio River, providing a natural site for development of trade and commerce.

The required minimum of $10,000 of stock subscriptions having been fulfilled by May 30th, notice was given of a meeting of stockholders to be held in the store of James Brooks in New Albany on July 2nd, to elect thirteen Directors and proceed to organization of the company; all of which was effectuated on July 8th. However, the proclamation of the Governor which consummated these proceedings was not signed until July 31, 1847.

Much enacting and amending of laws by the Indiana General Assembly ensued, before all of the legal formalities were concluded, necessary to precede the full enfranchisement and adequate financing of the enterprise.

Construction funds necessarily were obtained from local sources. People who subscribed to capital stock of the new railroad were blessed by only moderate means and frequently experienced difficulty in meeting installments due upon deferred balance of subscriptions. This caused much embarrassment to the railroad. The municipalities along the route were importuned to subscribe for railway stock. The towns of Salem and New Albany promptly responded, and in due course others did likewise as the line moved north subsequently through future years to: Orleans, Bedford, Bloomington, and Crawfordsville.

The President, Mr. Brooks, estimated that building the 35 miles of line between New Albany and Salem would cost $235,000; and that $65,000 would be required to purchase necessary locomotives and cars. Construction began on May 3, 1848 at New Albany and proceeded northward. Cuts and embankments were made by hand with pick and shovel, assisted by wheelbarrows and horsedrawn vehicles. Power tools and machinery were unknown.

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The line between New Albany and Salem traverses a series of high hills known as "The Knobs," which introduced three summits with sharp ascents and descents in the northern portion of the line.

A number of deep cuts, some entailing excavations 35 feet deep, mostly of rock, were necessary there; and as the present line is on the original grade and location, these remain the road's most vexatious operating handicaps to this day. In the efforts of the locating engineer to hold both gradients and earthwork to a minimum, frequent curves, many of them of sharp degree, were used; and these, too, remain to hamper present movement of trains.

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Construction progress is evidenced by the length of successive *Independence Day* excursions. The excursion running northward out of New Albany, in 1849, terminated *three miles* beyond town; but on the same day of 1850 it ran for *22 miles* before reaching the end of the line. Trains reached Salem, the initial northern terminus, on January 14, 1851.

Track was of primitive construction: ties were spaced four feet apart, notches were cut in their ends to provide a seat for long wooden stringers placed at right angles to ties, flat iron bars called "strap rails" which were 2½ inches wide, ½ inch thick, and 6 or 7 feet long, and weighed 22 lbs. to the yard, were laid on top of the stringers and fastened down with spikes driven through the center of these strap rails. These soon were replaced by the then recently developed "T" section of rail, imported from England and from Wales.

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Even before the New Albany & Salem Railroad reached Salem, its ambitions to push on to the north led to its obtaining amendments to its charter, which then in effect authorized it to build anywhere in the State.

The northern terminus of the New Albany & Salem Railroad became Orleans, 21 miles north of Salem, and 57 miles from New Albany, when the first train was run into that town on New Year's Day, 1852.

For the record, upon an anniversary such as the present, we must direct some attention to details of progressive development, through the years.

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Bedford, 15 miles farther north, was reached on April 18, 1853; and the line entered Bloomington on October 11th of the same year.

By January 1854, tracks had been extended on to Gosport, on the north branch of the White River, 113 miles from New Albany.

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In order to follow the progress of the railroad *chronologically*, it is necessary to skip geographically over 57 miles of line, between Gosport and Crawfordsville.

The latter community had been seeking rail access to the Wabash and Erie Canal at Lafayette, 27 miles north; so, in 1846, a group of its citizens incorporated the Crawfordsville & Wabash Railroad Company to build a line fulfilling that purpose.

Difficulty of financing the project delayed completion of surveys until 1850, but construction followed promptly and the line was completed by June 1, 1852. Its owners wished to handicap their rival merchants at Lafayette in using it conveniently to distribute goods in the intervening area, so they terminated the Crawfordsville & Wabash Railroad at a point on the Canal and the Wabash River, about a mile south of town, and well away from the business district of Lafayette.

The business men of that city retaliated by building a plank road from there, close to Crawfordsville. This constituted an improvement over the mud roads of the day and temporarily attracted trade of the farmers away from Crawfordsville and into Lafayette.

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Soon after the completion of the Crawfordsville & Wabash Railroad, the New Albany & Salem Railroad purchased control of the former, upon June 17, 1852; and subsequently extended its line into the City of Lafayette, which the first train entered on March 11, 1853.

Michigan City then became an immediate goal of the enlarged New Albany & Salem Railroad. No towns existed along the route, and the possibility of financing the construction of this 91 miles of line appeared to be an insurmountable obstacle, until the *Monon's* "roving charter" provided means of enabling a railroad from a neighboring State to cross a corner of Indiana upon the consideration of a stock subscription that provided the capital funds for this much needed extension.

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The Michigan Central and the Michigan Southern, both now parts of the New York Central System, but then bitter rivals, were racing for Chicago, in 1851. The Michigan Central found itself blocked from entering Indiana through unwillingness of the legislature of that State, which was disposed to aid its rival and so refused to grant it the privilege of building on west towards Chicago.

In consideration of Michigan Central's use of the New Albany & Salem's "roving charter," the former purchased $500,000 of

stock in the latter railroad, out of which $400,000 was used to finance the line between Lafayette and Michigan City and the remainder for work south of Crawfordsville.

Construction contracts were signed in August, 1851 for building the Michigan City-Lafayette line, and the railroad was completed October 3, 1853. The now continuous line of rail from Michigan City to Crawfordsville was 118 miles in length. The New Albany-Gosport line was 113 miles; and a gap of 57 miles remained to be closed.

The work had been begun during 1852; the last spike was driven on June 24, 1854, and the first train ran over the entire *288 miles of line* between Michigan City and New Albany, *in 16 hours*, on July 3, 1854. The formal opening of the road between its termini on the Ohio and Lake Michigan were appropriately held on the Independence Day which followed.

Completion of the line, *within seven years of its inception*, was both an historic event and a great achievement, because it entailed expenditure of about $7,000,000 of capital; a tremendous sum in those days!

Completion of the road brought an end to the difficulties of financing construction; but financial problems of operation quickly followed for a railroad which served an area yielding only small revenues.

While the New Albany & Salem Railroad traversed counties rich in agricultural resources, lumber, and minerals and possessed the finest building stone in the Nation, yet it threaded but few important communities. It did, however, have some advantages. The Indianapolis & St. Louis Railroad was in operation by the time the New Albany & Salem crossed its line at Greencastle.

Completion of the broad-gauge Ohio and Mississippi Railroad —The Baltimore & Ohio's St. Louis extension—in 1857, and the opening of the Louisville & Nashville Railroad in 1859, provided

interline traffic; but the principal allies of the New Albany & Salem were the Cincinnati, Indianapolis & Lafayette and the Michigan Central Railroads, which together provided a direct line between Cincinnati and Indianapolis and Chicago.

The Panic of 1857 climaxed accumulating financial difficulties of the New Albany & Salem and led to a receivership, begun on October 1, 1858. It ended in a foreclosure and reorganization, with transfer of the property to the newly formed *Louisville, New Albany & Chicago Railroad Company*, on October 24, 1859. The new title was more representative of the geographical scope of the railroad.

It was inevitable that this road should play an important role in military transportation during the Civil War. Its strategic importance to the North would make it an object of Confederate action. This culminated in Morgan's Raid into Indiana, during July 1863, when the dashing and courageous Southern cavalryman proceeded north as far as Salem, tearing up tracks and burning the railroad's water tanks, bridges, and depots.

The Louisville, New Albany & Chicago Railroad also played an honored role in the final event of the Civil War, when, on May 1, 1865, the funeral train bearing the body of the martyred President Lincoln passed over its line between Lafayette and Michigan City, en route from Indianapolis to Chicago, upon a final lap of its long journey from the City of Washington to Springfield, Illinois.

Financial difficulties returned to the Louisville, New Albany & Chicago Railroad Company soon after the Civil War ended, and when extraordinary movement of troops and military stores had stopped.

These were aggravated by construction of the line between Lafayette and Kankakee, depriving the Louisville, New Albany & Chicago of participation in traffic between Chicago, Indianapolis, and Cincinnati. Between October 1, 1868 and December 27, 1872, the company passed through a second receivership and reorgan-

ization, emerging on December 27, 1872 as the Louisville, New Albany & Chicago Railway Company.

On September 3, 1872, the Indianapolis, Delphi & Chicago Railroad was organized to build a narrow gauge line between cities named in its corporate title; and it completed 40 miles of line from Rensselaer to Delphi, which was opened on September 4, 1879. This property was foreclosed and sold to a successor, the Chicago & Indianapolis Air Line Railway Company in 1880, which promptly proceeded to construct 43 miles of narrow gauge line from Rensselaer to Dyer, Indiana, not far from Chicago.

On May 5, 1881, the company was absorbed by the Louisville, New Albany & Chicago Railway through consolidation. The track of the former "Air Line" was promptly relaid to standard gauge, and completed to a junction with the Chicago & Atlantic, now the "Erie," near Hammond, on January 9, 1882. It was used to bridge the 1½ mile gap to a connection with the Chicago & Western Indiana Railway at State Line, which route the "Louisville," like the "Erie," used into Chicago.

Work also was pushed forward from Delphi, south to a junction with the Lake Erie & Western, now the "Nickel Plate," near Indianapolis. While completed in October 1882, local trains were not run into Indianapolis until March 24, 1883. The first through train was operated in May of that year.

In 1884, the use of the Chicago & Atlantic was discontinued upon completion of the Louisville, New Albany & Chicago's own line through Hammond to its present connection with the Chicago & Western Indiana Railroad.

On March 1, 1886, the Louisville, New Albany & Chicago Railway bought the Orleans, West Baden & French Lick Springs Railway, and then completed the construction of this important 17-mile line by April 1, 1887.

While completion of this branch to French Lick Springs and of the "Air Line" between Cincinnati and Indianapolis produced additional traffic and the latter provided a new and friendly connection to Cincinnati, yet these events were all too soon followed by a period of unfavorable economic conditions, culminating in the Panic of 1893.

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Financial embarrassment again overtook the line, which defaulted on its obligations. A receiver was appointed on August 24, 1896, foreclosure proceedings followed, and the road was sold on March 10, 1897. Reorganization ensued and the property passed to the *Chicago, Indianapolis & Louisville Railway Company*, incorporated on March 31, 1897.

In 1898, the Chicago, Indianapolis & Louisville Railroad incorporated the Indiana Stone Railroad, which within the ensuing year, built a 9-mile low grade cut-off between Clear Creek and Harrodsburg, points south of Bloomington. This still represents the only line relocation since the inception of the company.

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In July 1902, more than 87 per cent of the capital stock of this company was acquired by the Louisville & Nashville and by the Southern Railways. The shares were divided equally between them, and the two proprietary lines entered into a mutual agreement that their ownership in this affiliate would continue in equal proportions, in the event of future acquisition of additional stock.

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Under sponsorship of these two great systems of the South and aided by the general development of the State of Indiana, the *Chicago, Indianapolis & Louisville Railway* enjoyed a relatively long period of prosperity.

Its traffic and earning power were materially augmented by construction of a 47-mile line incorporated in 1907 as the Indianapolis & Louisville Railway, from a CI&L junction, 16 miles south of Greencastle, into the rich coal fields of southwest central Indiana. The branch remains the railway's principal source of tonnage of local origin.

The Chicago, Indianapolis & Louisville Railway prospered primarily from freight and passenger traffic of local origin. Such classes of business proved particularly vulnerable to traffic erosion caused by the Depression of the early 30's and the concurrent growth of competitive agencies of transportation.

The Company once again proved incapable of withstanding a period of financial stress, when, on December 30, 1933, it succumbed to the longest period of bankruptcy in its history; one that terminated only on May 1, 1946.

So much for a long-drawn-out and somewhat tortuous corporate history!

The Chicago, Indianapolis & Louisville Railway is small as American railroads go. It owns but little more than 500 miles of line, all single track and located entirely within the State of Indiana, although it has terminal affiliations which enable it to operate its freight and passenger trains into Chicago and into Louisville.

Truly, it is an Indiana institution! The Hoosiers regard it as their very own. Of such circumstance we, rightfully, are proud.

Come to the 100th Year of its existence: and it is almost as much an institution of the State of Indiana as the capital itself, or the much fabled Wabash River!

Indiana folk prefer always to know it as "*The Monon*"; and that is the name today emblazoned upon its rolling stock.

The name was derived from the small village of Monon, incorporated in 1879 under the name which, in 1848, was given to a local post office and township. These, in turn, were taken from Big and Little Monon Creeks, which flow through towards the Wabash.

Monon is located at the intersection of the two main lines of the railway named for it, one line extending from Louisville to Michigan City, and the other from Indianapolis to Chicago.

The late and renowned George Ade, in brief but eloquent tribute to the *Monon*, gives the meaning of its name, in the last of the lyric paragraphs which follow:

"The traveler who wishes to see Indiana must go riding on the *Monon*. It was the first Iron Trail to be pushed from one end of the state to the other. That is why so many worthwhile things may be seen from the car window.

"The *Monon* pathway is by open prairies and deep woodland, across the Kankakee and Tippecanoe and Wabash, up to the gates of important cities, and through the quiet shades of college towns. It links the Ohio with the Grand Calumet and lays a friendly hand on factories, fields and quarries through an important chain of counties.

"The name '*Monon*' is Indian. It means 'swift-running.' The railway began to make history some ninety years ago. My first dream, as a Hoosier boy, was to ride away on the *Monon* toward the Heaven-piercing spires of Lafayette or Michigan City. The *Monon* is 'catty-cornered' to the whole State of Indiana, and all its trains are '*Hoosiers*.' "

And now, the *Monon* has earned the distinction of "*A Century of Service*" at the crossroads of America:—Indiana.

The year of its incorporation, 1847, was 100 long years ago; when those forward-looking Hoosiers of New Albany and Salem wanted a railroad to meet increasing transportation needs.

They wanted to go faster than horses, and in carriers with a capacity much greater than any carriage or any wagon.

They wanted trains—with chugging engines and clanging bells and screeching whistles. Trains that had cars for people and cars for freight. And they wanted tracks—railroad tracks—that would lead to places they wanted to reach.

So these Hoosiers—like most typical Hoosiers—went to work; and, with their own strong hands, they literally built the first thrilling miles of tracks for the new railroad.

Naturally, these folks looked upon this new railroad as *their* railroad—an intimate thing—a personal thing that belonged to them for their personal use.

Ever since that time, the *Monon* (Indian name for "swift-running") has been "our" railroad to the good people of the

State of Indiana! George Ade, James Whitcomb Riley, John T. McCutcheon, and Booth Tarkington are a few only of the many famous Hoosiers who could be listed among these intimate "friends of the road."

All have thought of it, and spoken of it, even have written about and "cartooned" it, with the same sense of *personal ownership* that prompts Hoosiers to speak of "our town"—"our school"—"our team"—"our church"—"our State House"—"our Circle."

The *Monon* quickly became a part of the Indiana scene—a section of "Hoosier" life moving on wheels and upon tracks—the train a Hoosier used whenever possible, because it was *a Hoosier* institution—because it was a bit of "home" on wheels.

In these past one hundred years, *Monon* not always has met the highest ideals of railroad service. It has had shortcomings. But this same friendly road has served the people of Indiana for one hundred years, which is, in itself, deserving of recognition. Because, be it human, animal, or mechanical, nothing *can live for 100 years* without having something basically sound within it!

Such philosophy, in things American, appears well founded—among institutions that have survived and served: during ten successive and unbroken decades.

So it is that *"The Hoosier Line"*—one hundred years young today—is celebrating not only a full century of service to Hoosiers and others, but celebrating the beginning of a "new century" which will integrate into it the best modern Engineering and Transportation standards.

The swiftly accelerated pace of American industrial progress has intensified the demands upon the railroads to produce higher standards of service at lower unit costs. *Monon* is cutting the Gordian knot of this transition, through complete modernization of its equipment, its roadway, and its facilities.

Every aspect of modern life is a challenge to the railroads of America for improved service. Only the "prepared" can survive in this mighty forward surge of Modern Progress. *Monon* accepts the challenge! Movement of freight at high speeds, with safety and punctuality, to meet the needs of modern shippers, is exemplified by new *Monon* Diesel-powered fast freight service. Already well under way, this modernization plan will, when shortly completed, make the *Monon* the first completely Diesel-powered railroad of its size—modernized to serve shippers within Indiana and those using this natural "corridor" to speed the movement of precious cargo, between all sections of the Nation.

The *Monon* looks forward to the years ahead: with confidence and with optimism. Along with America's great railway systems as a whole, the *Monon* sees 1947-48—its 101st Year—as the dawn of a new era in swift, safe, and comfortable service, and "on-time" operation of fast-scheduled freight trains.

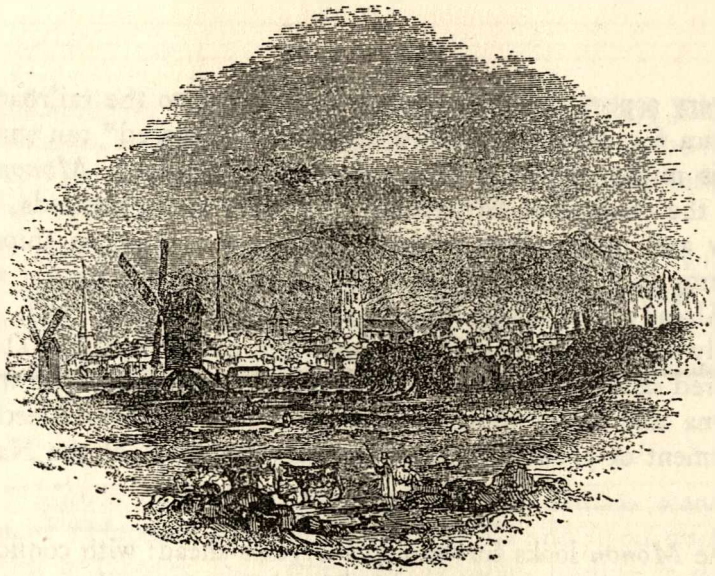
For a heritage of the past which has made possible our ambitious plans for the future, the present *Monon* management extends sincere thanks to loyal Hoosiers who have bequeathed *The Hoosier Line* to the present year and to the future century. Theirs is the inspiration.

Because, after all, it is people *and people alone* who can put the warm blood and beating heart of life into a railroad *for a 100 years!*

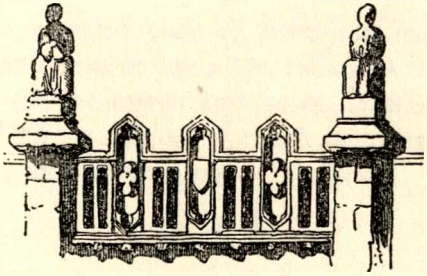
We feel we are part of yourselves.

THE END

"Actorum Memores simul affectamus Agenda!"



THIS PILGRIMAGE ADDRESS, *based upon early history of "The Monon" (The Chicago, Indianapolis & Louisville Railway) and upon contemporary sources of life in Indiana a century ago, was delivered during the "1947 National Pilgrimage" of* THE NEWCOMEN SOCIETY OF ENGLAND, *celebrating the Centenary of "The Monon" and held at French Lick, Indiana, U.S.A., on August 6th-7th, 1947.* MR. BARRIGER, *the guest of honor, was introduced by* COLONEL R. B. WHITE, *President, The Baltimore and Ohio Railroad Company, Chairman of the Baltimore Committee, in The Newcomen Society of England. The Pilgrimage meetings were presided over by the* SENIOR VICE-PRESIDENT FOR NORTH AMERICA, *in this international body.* MR. BARRIGER *is a Vice-Chairman of the Indiana regional committee, a roster of whose Office Bearers is given in the following pages:*



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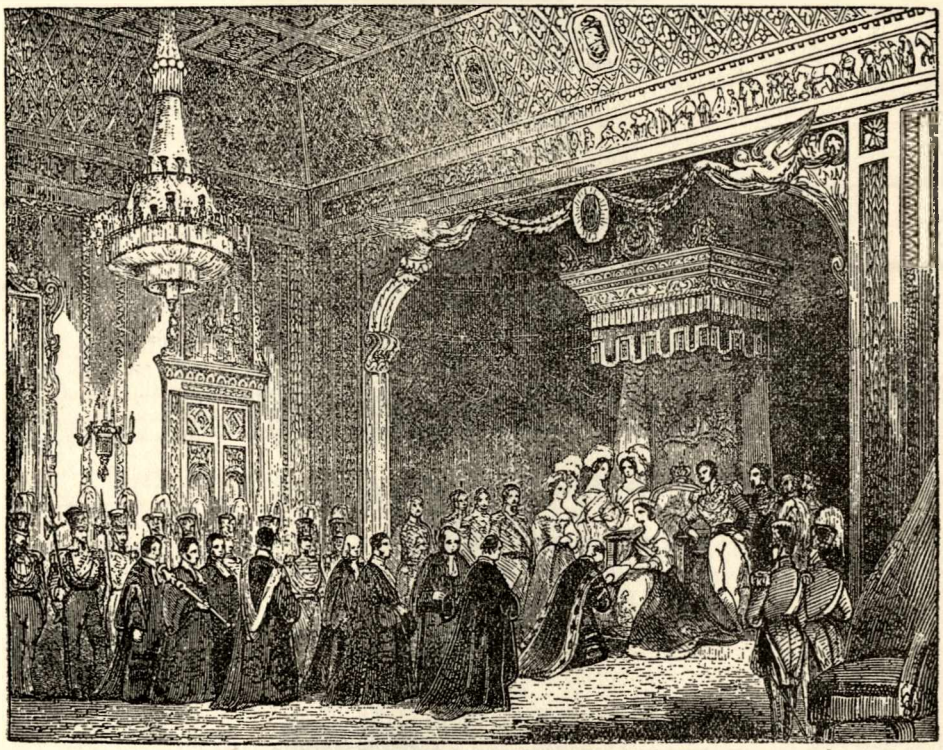


"For a heritage of the past which has made possible our ambitious plans for the future, the present *Monon* management extends sincere thanks to loyal Hoosiers who have bequeathed *The Hoosier Line* to the present year and to the future century. Theirs is the inspiration.

"Because, after all, it is people *and people alone* who can put the warm blood and beating heart of life into a railroad *for a 100 years!*

"We feel we are part of yourselves."

—John W. Barriger

THE NEWCOMEN SOCIETY OF ENGLAND

IN NORTH AMERICA

BROADLY, *this British Society has as its purposes: to increase an appreciation of American-British traditions and ideals in the Arts and Sciences, especially in that bond of sympathy for the cultural and spiritual forces which are common to the two countries; and, secondly, to serve as another link in the intimately friendly relations existing between Great Britain and the United States of America.*

The Newcomen Society centers its work in the history of Material Civilization, the history of: Industry, Invention, Engineering, Transportation, the Utilities, Communication, Mining, Agriculture, Finance, Banking, Economics, Education, and the Law—these and correlated historical fields. In short, the background of those factors which have contributed or are contributing to the progress of Mankind.

The best of British traditions, British scholarship, and British ideals stand back of this honorary society, whose headquarters are at London. Its name perpetuates the life and work of Thomas Newcomen (1663-1729), the British pioneer, whose valuable contributions in improvements to the newly invented Steam Engine brought him lasting fame in the field of the Mechanic Arts. The Newcomen Engines, whose period of use was from 1712 to 1775, paved a way for the Industrial Revolution. Newcomen's inventive genius preceded by more than 50 years the brilliant work in Steam by the world-famous James Watt.

"The roads you travel so briskly
lead out of dim antiquity,
and you study the past chiefly because
of its bearing on the living present
and its promise for the future."

—LIEUTENANT GENERAL JAMES G. HARBORD,
K.C.M.G., D.S.M., LL.D., U.S. ARMY (RET.)

American Member of Council at London,
The Newcomen Society of England

Railroads (I I)
DUP - OR16

RAILROADS.

The Terre Haute & Indianapolis Railroad was completed in 1852, consequently is one of the oldest roads in the State. The road has done and is doing an immense amount of business, having two of the largest and most energetic cities of Indiana at each terminal point, it must necessarily, with fair management, prosper. We cannot pass over in silence its great advantages as a *coal road*, passing as it does over the very heart of the block coal deposits, and doing a greater business in shipment of coal than all other roads combined.

It has constructed latteral lines in every direction to operating shafts and furnaces in and near Brazil. Six of which furnaces near the line of this road are in full operation, the most of whose immense amount of freightage is done at reasonable rates by this company alone.

There are —— miles of latteral lines, or more commonly termed switches, to the different mines. This road was built principally by Terre Haute capital and is emphatically a Terre Haute enterprise. The main officers are composed of our citizens, with their headquarters at Terre Haute. Chauncey Rose was elected first President, who declined to serve after the road was completed. W. R. McKeen is the present incumbent. The main line was extended seven miles west of Terre Haute to the State line in 1870 to connect with the

St. Louis, Vandalia & Terre Haute Railroad, which was put in operation through to East St. Louis in 1870, a distance from Indianapolis of 238 miles, running upon almost an air line between its two terminal points. In 1870 it was leased to the Terre Haute & Indianapolis Railroad whose officers still have control of it. It was found by experience that the St. Louis, Alton & Terre Haute Railroad was not sufficient to convey the immense freights from west to east constantly accumulating at St. Louis, consequently the Vandalia route was projected and completed, still there is an accumulation of freights at certain seasons of the year, which difficulty may soon be overcome by the rapidly increasing rolling stock of the road. This road passes through one of the finest wheat and corn sections of Illinois, whose prairie lands cannot be beaten for fertility in any part of the west.

The most of the ores from Iron Mountain for the supply of our blast furnaces pass over this line, it being the shortest and most direct route to St. Louis and the mines. The general offices of this Company are at Terre Haute. The length of the road is 159 miles.

The Indianapolis & St. Louis Railroad—The main line of the I. &

St. L. R. R., is two hundred and sixty-one miles in length. Its course from Indianapolis to St. Louis is a little south of west, passing through, in the western part of Indiana, a heavy timbered country, and a portion of the great *block and bituminous* coal fields. Near Paris, Illinois, it strikes the great prairies of Illinois, and from there to St. Louis, it passes through one of the most magnificent agricultural countries in the Union. Near the station of Lena, twenty-four miles east of Terre Haute, it enters the coal fields, and from there it passes through one continuous bed of coal for over *twenty* miles. Large mines are already open, and others being rapidly completed, so that the coal trade of this road has already grown to be one of its chief freights, although that part of the road from Indianapolis to Terre Haute has only been completed about three years. This road passes through some of the best towns in Indiana and Illinois. Danville, the County Seat of Hendricks county; Greencastle, the County Seat of Putnam county, Indiana; Carbon, situated in the center of the great coal fields, Terre Haute, the County Seat of Vigo county, Indiana; Paris, the County Seat of Edgar county, and Charleston, the County Seat of Coles county, Illinois; Mattoon, at the crossing of the Chicago Branch of the Illinois Central Road, a town of some 8000 inhabitants; Shelbyville, the County Seat of Shelby county; Pana, at the crossing of the Main Branch of the Illinois Central Road; Hillsboro, the County Seat of Montgomery county, Illinois; Litchfield, at the crossing of the T. W. & Western Road.

At Greencastle this road connects with the L. N. A. & Chicago Roads, at Terre Haute with the Evansville & Crawfordsville Road, the Logansport, Crawfordsville & South-western Road, the Evansville, Terre Haute & Chicago Road, and the Cincinnati & Terre Haute Road. At Paris with the Paris & Decatur, and the Paris & Danville Roads; at Mattoon with the Illinois Central Road, and the Mattoon & Sullivan Roads; at Windsor, with the B. & O. Road; at Pana, with the Main Branch of the Illinois Central Road, and the Springfield & Southeastern Road; At Litchfiald with the T. W. & W Road. At Alton Junction, a branch extends to the latter city, and at Edwardsville crossing, it makes connection with the road leading to this town. At Indianapolis and St. Louis it makes close connection with all roads centering to these great Railroad centers. In fact the I. & St. L. is one of the great roads of the West.

Evansville & Crawfordsville—This Railroad passes in nearly a direct line South from Rockville to Evansville, a distance of 132 miles, 23 miles north of Terre Haute, having been leased to the L. C. & S. W. R. R. Company. This road forms a part of the shortest and most direct lines from Chicago to Nashville and the South. This is one of the oldest roads of the State, having been in running order for nineteen years.

Though passing through one of the most fertile sections of the West, with two enterprising and fast growing cities at either terminus, still the agricultural and mineral resources along its line have not, until recently, been sufficiently developed to be of very great benefit to the road, consequently this road (up to a recent period) has been depending mainly on its through traffic from north to south. But within a few years past, towns and villages have sprung up along its course. The praries are being brought under cultivation. The timber is being used for manufacturing purposes, and mining in Sullivan county, through which the road passes, is being carried on extensively. According to the latest reports of the State Geologist for 1870, 130,000 tons of coal was shipped over this road annually.

The amount for the last year has been at least one-third more. There are five seams of coal underlying the county, varying from two to nine feet in thickness. It is more commonly termed the *hard* or *stone* coal. It is said to be fully equal to the Pittsburg coal for the manufacture of gas, &c. There is but very little dust arising from its burning. Its average weight per cubic foot, is 80.06 lbs. It will be readily seen that the prospects of this road are good by a perusal of the last reports.

The increase over expenditures for the last year (1872) was $86,609 30. The rolling stock is in good condition. The officers of the road are as follows:

John Ingle, President; E. M. Martin, Secretary and Treasurer; L. Pearson, Superintendant; C. C. Genung, Civil Enginer and Paymaster. General offices at Evansville.

Evansville, Terre Haute & Chicago Railroad was completed early in 1871, and from that time up to the present, has been in successful operation. As a coal road to the great metropolis of the west, "Chicago," this road has no lines to compete with it. Witness the language of Prof. Cox, State Geologist, while speaking of the coal deposits of Sullivan county: "Sullivan county is rich in valuable coal beds, and the recent opening of the *Evansville, Terre Haute & Chicago Railroad* will furnish a good market. Josephus Collett, Jr., the energetic President of this road, is determined that it shall be one of the greatest coal roads in the country. Together with connecting roads, it has a supply of nine hundred coal cars to start with. Three shafts in Sullivan county are doing a fine business; two mines have been opened in Vermillion county, which together with the above, and the block coal mines of Clay county, already furnish about one thousand tons per diem on this road alone. This rate of freightage will rapidly increase as the coal becomes known:" which prediction is fast being realized. The general offices are at Terre Haute. Josephus Collett, Jr., President.

The Logansport, Crawfordsville & Southwestern Railroad terminates at this point, and is built upon an air

line from Logansport to Rockville and from thence to Terre Haute. From north eastern to the south west this road has many advantages, having no competing or parallel lines to reduce its freights or profits. It is a comparatively new road, having been completed in 1872. The rich section of country through which it passes is a sufficient guarantee of its progress, not only rich in agricultural products but in minerals also. At Rockville it passes over the northern terminus of the celebrated block coal deposits of Indiana, having branch lines, commonly termed switches, running in different directions to the various mines along or near the main line. The road since August last has shipped over its line 37,500 tons of coal, to different points including Lafayette, Logansport, Terre Haute, Toledo, Chicago and north eastern Indiana. The demand is still increasing with the increased capacity of the road.

For Locomotive and fuel use it is said that the coals obtained on the line of this road are of a superior quality, as well as for smelting purposes, being of a free-burning, non-sulphurous, bituminous quality, specially adapted in its raw state for the manufacture of pig iron. This line is the only one penetrating this coal field from a north easterly direction, and must necessarily supply that section with fuel. Aside from this the road passes through some of the best timbered lands of the State, from which Chicago, Logansport, Cincinnati, Lafayette, Ft. Wayne and Indianapolis are drawing largely for their supplies of Poplar and Oak, while millions of feet of *Black Walnut* have been shipped to the above named points since the completion of the road.

The rolling stock of the road consists of 300 cars of the latest pattern and 8 engines peculiarly adapted for fast time on all passenger trains, and the transportation of heavy freights and freight trains. The length of the road is 115 miles, passing through sections of Cass, Carroll, Clinton, Boone, Montgomery, Parke and Vigo, whose total valuation is over $60,000,000.

The managers of this road have spared nothing to bring it up to a first-class standard. The road is new and well built, and the great amount of business alone would argue that by continued good management the company cannot fail to improve in a financial point of view as well as otherwise.

The officers of the road are as follows: W. P. Cutler, President; John Lee, Vice President; E. C. Dawes, General Superintendent; McLene Doherty; Assistant Superintendent; J. E. McGettigan, Auditor, General Freight and Ticket Agent.

Paris & Decatur Railroad.—The Paris & Decatur Railroad was chartered July 18, 1861, at the instance of Chauncey Rose. The war then already being in progress caused a temporary suspension of operations. Consequently the enterprise remained in suspension until July 10, 1869, when the present managers com-

RAILROADS - INDIANA DUP

the action of the Penn Central merger

. . . . . is in Indiana

INDIANA is "where the action is" in history's biggest corporate merger, the joining of the former Pennsylvania and New York Central railroads to form Penn Central.

The Hoosier state has for decades been a major arena of competition between these two historic rail titans. It became one of the parlors of the eleven-year courtship that preceded the corporate marriage. And since the merger, it has continued as a major center for computer-era operations of what is formally known as the Penn Central Company, largest transportation company in the world.

With Indianapolis as its hub, the network of Penn Central tracks is mainly responsible for the "Crossroads of America" image of the Hoosier capital.

Penn Central lines criss-cross Indiana in all directions, but primarily they serve to link the West and Southwest with the Atlantic seaboard and the Great Lakes industrial region with the expanding South.

PC's Indiana tracks are part of the company's mainline rail connections between these important centers of trade and commerce:

New York, the nation's largest city, and Chicago, second largest city and world's largest rail terminal, connecting the East and the West.

New York and St. Louis, world's second largest rail terminal and principal connection with the Southwest.

Chicago and Louisville, gateway to the South.

Chicago and Cincinnati, Queen City of the Ohio Valley.

Some 5,660 miles of Penn Central tracks are in Indiana; 2,832 miles of it is mainline.

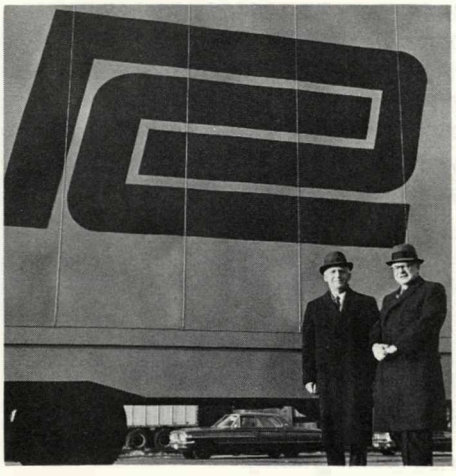
Penn Central's total railroad employment is 95,000. Average compensation, including fringe benefits, amount to $9,421.

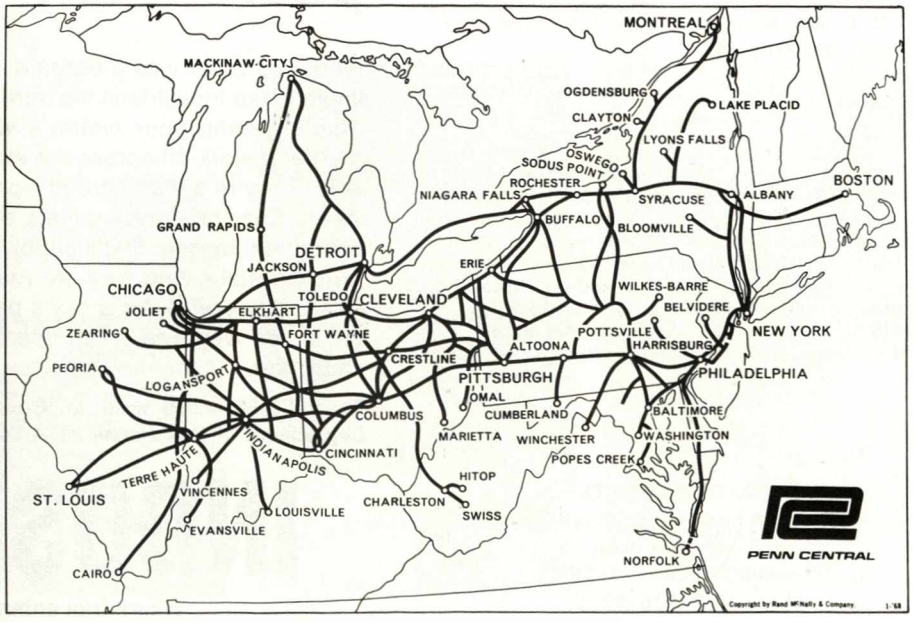
PENN CENTRAL'S Indiana operations are controlled from three regional headquarters.

Indianapolis is headquarters for the Southern Region of which Jeremy Taylor is general manager. The Southern Region includes most of central and southern Indiana and also portions of Illinois, Ohio and West Virginia, with terminals in Kentucky and Missouri. Headquarters of the Indiana and St. Louis divisions, which are part of the Southern Region, are also in Indianapolis.

The Southern Region is the merger trail blazer because it is the largest geographically of the eight operating regions on the vast 20,000-mile Penn Central system and

A. E. PERLMAN, left, and S. T. SAUNDERS, respectively president and chairman of Penn Central Company (photo below). At right is Penn Central's combined track network.





indiana
BUSINESS & INDUSTRY

A Monthly Magazine Devoted To Advance Business and Industrial Growth, Development and Expansion in Indiana

Vol. 12 ● No. 9 ● Sept. 1968

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JOHN A. CLEVELAND, *President*
DAVID B. CLEVELAND, *Publisher*
BILL BELLAMY, *Editor*
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Editorial Assistants

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ADVERTISING REPRESENTATIVES
INDIANAPOLIS: David B. Cleveland, 6440 Creekside Lane, Indianapolis, Ind. 46220 / Phone 317-849-4788. MIDWEST-CHICAGO: Wallace G. Holdsworth and Ronald Bondlow, 865 N. Busse Highway, Park Ridge, Ill. 60068 / Phone 312-692-2033. CLEVELAND: Charles Bashian, 1501 Euclid Avenue, Cleveland, Ohio 44115 / Phone 216-696-1160. EASTERN-NEW YORK: C. Lynn Coy Associates, 155 E. 50th Street, New York, N.Y. 10022 / Phone 212-751-2960.

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Published monthly at Plymouth, Indiana, by Indiana Business Magazine, Inc. Second Class postage paid at Plymouth, Ind., 46563. Subscription rates: One year, $3; two years, $5.50; three years, $7.50. Single copy, 60 cents. Subscribers desiring a change of address should give us their old address as well as the new. Advertising rates on request. Printed by Indiana Press, Inc., Plymouth, Indiana.

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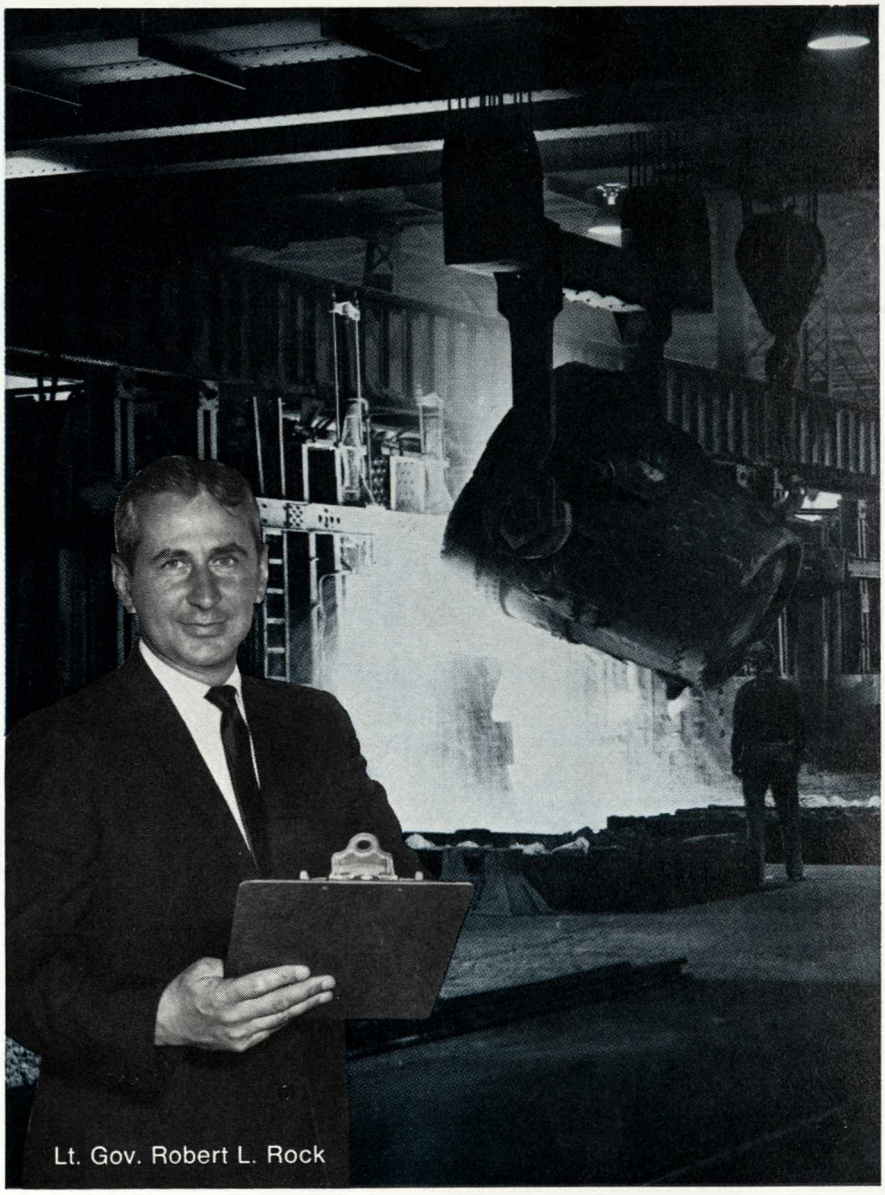
EXECUTIVE OFFICES
Editorial, Advertising & Circulation
1650 N. Oak Road
Plymouth, Indiana 46563
Phone 219-936-9975



Lt. Gov. Robert L. Rock

Industriana labor really pours it on!

Who said labor was a bargain in Industriana? It's a steal! Men like these make Industriana the third largest steel producer in the nation. That's getting your money's worth! You'll find men of the same mettle at work all across the state in every type of industry imaginable. They're a tough breed—proud of their work and proud of their state. They are Industriana's skilled workers—products of a vast vocational system that's supplying labor to meet the demands of a growing state. And they are ready to go to work for you—ready to give a day's work for a day's pay. Plant yourself in Industriana and you'll see why free enterprise is still growing. Our labor force will show you.

For full information write: Lt. Governor Robert L. Rock, Director, Indiana Department of Commerce, 336A State House, Indianapolis, Indiana 46204.

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Where free enterprise is still growing.

For more information circle 17 on Inquiry Card

DOWN THE HUMP (above) at Big Four Yards at Avon; and (at right) Elkhart's Robert R. Young Yard.

offers the best opportunity of eliminating overlapping and duplicate facilities. Major Indiana cities in the Southern Region are Indianapolis, Richmond, Muncie, Anderson, Terre Haute, Evansville and Jeffersonville.

Most of PC's northern Indiana trackage and operations are controlled from Chicago, headquarters of the Western Region. Howard C. Kohout is Western Region vice president and general manager.

The Western Region also encompasses portions of Illinois, Michigan and Ohio, but the teeming Chicago terminal, which receives and dispatches thousands of freight cars daily, is the region's focal point. Hoosier cities within the Western Region are Logansport, Fort Wayne, Gary, South Bend and Elkhart.

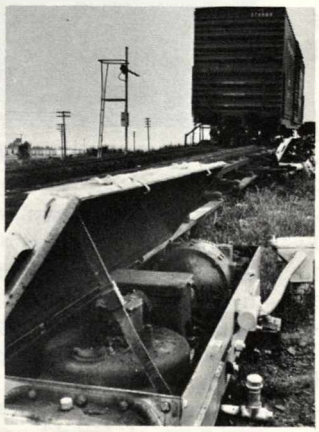
A small portion of PC's operation in northeastern Indiana in the Ligonier-Kendallville-Angola area is controlled by the Lake Region at Cleveland. John H. Burdakin is regional vice president and general manager.

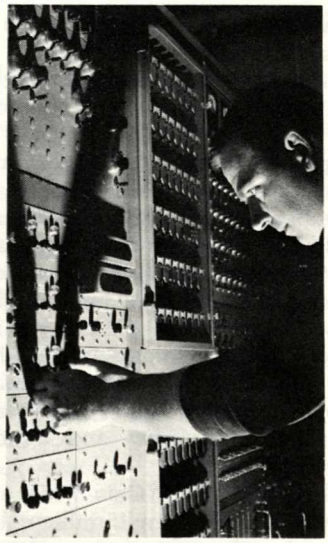
Among Penn Central's major facilities in Indiana are more than a dozen yards and repair shops. Included are the Big Four Yard at Avon, with 4,700-car capacity; the 7,800-car Robert R. Young Yard at Elkhart; the 2,600-car yard at Richmond; Hawthorne Yard at Indianapolis, with 3,400-car capacity; Piqua Yard at Fort Wayne, 3,000-car capacity; the 1,000-car yard at Jeffersonville and Colehour Yard at Hammond, with 1,400-car capacity.

WHAT HAS BEEN labeled the "rebirth of railroading" — the transition from manual to automated operation — has no example more outstanding than Indiana's Robert R. Young Yard at Elkhart, measuring 675 acres, and the 490-acre Big Four Yard at Avon, 12 miles west of downtown Indianapolis. They are two of the largest and most dramatically modern electronic freight yards in the world. Only one other state in the Penn Central system has two such yards. That is New York.

Dominating activities at these and other Penn Central electronic yards are computers, pushbutton controls, closed circuit TV, automated switching, radar detectors, photo-electric beams, micro-wave and more common walkie-talkie and hand-radio communications. There are

CLOSED CIRCUIT television used in freight classification (left below). Retarders (looks like and is informally called a coffin), on downward side of the hump, squeeze wheel of rail car applying exact pressure to make car hit coupling at four miles an hour (left center). Panel of pushbuttons activates computerized operations of freight classification (right center) as does data processing equipment (right). These controls are typical of equipment of the bigger Penn Central facilities in Indiana, where there are more than a dozen major yards and repair shops.





TYPIFYING THE PENN CENTRAL MERGER are three trains being refueled at the Big Four Yard. In left foreground is a New York Central engine, at left center a Pennsylvania Rail Road engine at at left rear an engine with the new Penn Central design. All lettering is being changed to Penn Central.

72 classification tracks at Elkhart and 55 at Avon.

The Big Four and Young Yards are hump yards, and the hump is the most simple device in the railroad industry – rails built over a small hill where freight cars are pushed to the top by switch engines, the real workhorses of the railroads, to go coasting down the other side. But the simplicity of shoving a rail car over a hill is dependent on myriad controls and devices that accomplish the intricate purpose of the hump – sending each incoming freight car individually and at an exact speed to the respective track where it will become part of a complete train for further movement to its destination.

At the top of the hump is the tower and from within this structure the critical and precise downward movement of the cars is controlled by men and electronics.

A computer and allied electronics assess each diverse factor including the car's rollability, weight, track destination, climatic conditions and distance it must roll to where it will be coupled. Each car must hit the coupling at the ideal, shock-free speed of four miles an hour. "Retarders" on the rail squeeze the wheel of the rail car on its downward run, applying the precise braking pressure to slow the car to the point that it will hit the coupling at four miles an hour.

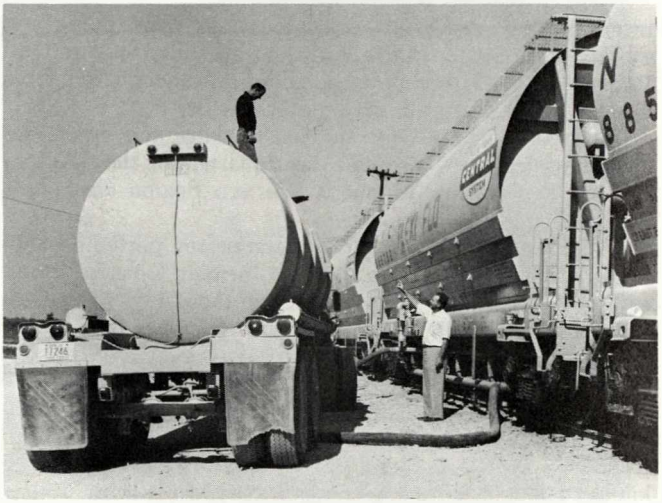
The yard conductor activates the computer from a panel of pushbuttons in his office in the tower.

More than 1,200 cars have been humped in one eight-hour shift at Young Yard. Time is the reason for modernizing and improving. The result has been the slashing of freight timetables and improved service for shipper and consignee.

Plans for a $3 million expansion of the Big Four Yard, announced this spring and now under way, will increase the yard's capacity to 5,800 freight cars, permitting additional classification of cars and faster receiving and dispatching of trains. Construction of 28,000 feet of new receiving and departure tracks is planned, along with 14,000 feet of new main line track and conversion of the old main to departure trackage from which outbound trains are dispatched. Nine new pushbutton switches and a conductor's office will be added.

The Young Yard was built by the NYC in 1958 and the Big Four Yard in 1960. Both were multi-million dollar modernization projects and each replaced more than a dozen smaller yards.

AMONG FAST GROWING types of freight service is containerized freight. Truck trailer body, without wheels, is deposited on flat rail car to become freight car.



FLEXI-FLO UNIT takes on product for fast freight service.

A PENN CENTRAL piggy-back shipment.

Freight classification is not the only job of these and other Penn Central yards. The major yards have locomotive sanding and fueling facilities, engine repair shops, car repair stations, wrecker equipment and special areas for loading and unloading piggyback and containerized freight shipments.

Piggyback and containerized freight is the fastest growing type of freight service. Piggyback is the hauling of

truck trailers on flatcars with the trailer's rear wheels intact. Containerization is the transportation of truck trailers without wheels attached. In both cases, the trailer is moved to and from the rail-loading site via truck. The trailer is disconnected from its cab when loaded aboard flatcars.

Containerized freight features a "go everywhere" type service, equally adaptable to highway, rail or sea movement. After being trucked to the rail site and hauled via flatcar to a seaport, the trailer or container is transferred to a ship for overseas destination.

Big Four Yard at Avon is served daily by SV-6, once cited by *Trains Magazine* as the fastest freight train in the United States. It has an all-containerized consist and averages better than 60 miles per hour.

Penn Central has interchange agreements with 30 of the principal steamship lines offering containerized service throughout the world. Revenues from containerized and piggyback traffic have continued to rise for Penn Central. Volume of loaded trailers last year rose to 415,000, some 25,000 more than the previous year. The company handled about 21% of total piggyback shipments and about 20% of the nation's automobile output last year.

Another specialized freight service of Penn Central is Flexi-Flo, the transportation of dry bulk products such as cement in pressure-differential rail cars. The product is transferred from rail car to truck by air pressure for final delivery to point of use. Flexi-Flo terminals are at Hammond, Indianapolis and Jeffersonville.

MERGER OF THE Pennsylvania and New York Central railroads was proposed as early as 1957. This was followed by an official announcement by the two companies that they would file a merger application with the Interstate Commerce Commission, the filing of the application in 1962, more than two years of ICC hearings in the case and the final formal approval of the merger on February 1, 1968.

Stuart T. Saunders, who was chairman and chief executive officer of the Pennsylvania Railroad, became chairman of the board of Penn Central; and Alfred E. Perlman, who was president of the New York Central, became president of the newly merged company.

Otto N. Frenzel, chairman of the board of Merchants National Bank, Indianapolis, is a member of Penn Central's board of directors.

O. Frenzel

The new company operates on 40,000 miles of track in 14 states and two Canadian provinces. Penn Central operates 4,200 locomotives, 195,000 freight cars and 4,937 passenger cars.

The companies that now comprise Penn Central and subsidiary lines invested $280 million in capital improvements last year, and since 1961 have acquired more than $1.4 billion in new equipment and facilities, primarily new freight cars and more powerful locomotives. Added to these expenditures was the recent order of 100 high-speed, heavy duty diesel-electric freight locomotive units to cost about $24.5 million, bringing to $80 million commitments for new freight equipment since the official merger date.

A new $29 million electronic freight classification yard at Selkirk, N.Y., is to be dedicated this month; a $26 million electronic yard will be built at Columbus, Ohio, and PC's Sharon Yard in Cincinnati is getting a $2.7 million face-lifting.

Completed at about the same time the merger was consummated was rebuilding of the Pennsylvania Station in New York, Madison Square Garden Center, and the 29-story Penn Plaza office building. Penn Central has a 25% interest in the Garden Center and a 55% interest in the office building which is entirely leased. These are but a few of the Penn Central holdings that make it the largest commercial real estate company in the United States.

Penn Central continues to emphasize a diversification program which is contributing to earnings. The firm's consolidated earnings for 1967 which, although reflecting a sharp decline in railroad net income (it was a poor year for the entire railroad industry, particularly those in the eastern half of the nation), did reflect a growing contribution to profits by non-railroad subsidiaries.

Consolidated earnings, supported by mainline, non-railroad diversification, amounted to $71.4 million in 1967 before deduction of extraordinary charges to set up a reserve covering some of the expenses of effecting the merger. On the basis of 23,016,274 Penn Central shares outstanding at the close of the fiscal year, consolidated earnings per share in 1967 before extraordinary charges were $3.10. The comparable figure in 1966 was $6.44. Consolidated revenues increased 1.6% from $2.04 billion to $2.07 billion. The consolidated company provided for capital improvements amounting to $360 million in 1967. Penn Central has approximately 2,600 shareholders in Indiana.

Chronic deficits in the operation of passenger trains are the nemesis of railroading and have been for years, and the mighty Penn Central does not claim to be an exception. The industry's losses in passenger service will run around $480 million annually. Penn Central had a $85 million deficit in passenger business last year. If the railroads were still running as many trains as in 1957, the passenger deficit would range around the $1½ billion mark, substantially more than the industry's net operating income of somewhat more than $1.16 billion from freight service.

Penn Central has been attempting to develop a new role for passenger traffic, concentrating on intermediate-range service in densely populated areas. A high-speed service between Washington and New York is being developed by Penn Central in cooperation with the Federal Department of Transportation and is the largest and most unique marketing project in railroad history.

INDIANA CONTAINS some 750 miles of pipeline of the Buckeye Pipe Line Company. Penn Central is owner of all common stock of Buckeye which operates a 7,500-mile pipeline network for transporting crude oil to refineries and refined products to consuming areas in Indiana and six other midwestern and northeastern states and in Florida and Washington.

Profitable for Penn Central as a major diversification, the pipeline operations earned a record $13.6 million in 1967, a 9.5% increase over 1966.

Penn Central's other diversification areas are: real estate operations and sales, with gross receipts of $205.5 million last year (an increase of 50% over 1966); Macco Realty Company, wholly owned by Penn Central, a residential land developer earning $7.5 million last year (up 75%); Great Southwest Corporation, 80% owned by Penn Central, a land company in the Dallas-Fort Worth area and in Atlanta, whose earnings rose 67% to $5 million in 1967; Arvida Corporation, in which Penn Central has a 59% interest, a real estate developer on the Atlantic and Gulf coasts of Florida with net income of $1.06 million last year (a 4% increase); Strick Corporation, wholly owned by the railroad company, and a pioneer in manufacture of aluminum trailer and container equipment with net income of $861,000.

Penn Central's Industrial Development Department adds 69 plants, over $30 million investment to Indiana's economy in one year

ADD 69 new industrial plants with more than $30 million estimated plant investment and thousands of new job openings to Indiana's economy.

That's what Penn Central's aggressive industrial development department did for the Hoosier State in 1967.

The effect on Indiana of on-line plant location activities of Penn Central has been generation of new industry, added jobs, additional salaries pouring into the state's economy and more taxes for the state's coffers. Multi-million-dollar would seem an almost inadequate description of the effect of these activities. Penn Central properties in Indiana have, for example, an Indiana State Tax Board assessment of $84,115,560 for the calendar year.

Penn Central's plant recruiters combined this pubilc service with railroad business. Those 69 new plants, in addition to brightening Hoosierland's economy, also developed hundreds of carloads of new freight business for Penn Central.

"Each new or expanded industry produces a double-barreled benefit – it booms the state's economy and at the same time increases Penn Central's freight traffic," explains Henry Louthan, PC's manager-industrial development at Indianapolis.

"We work with Chambers of Commerce, state industrial development officials, zoning boards, utilities, county and city administrations and anybody else interested in bringing new plants to Indiana . . . for the most part our eggs are all in the same basket," says Louthan.

Penn Central's contribution to Indiana's industrial growth in 1967 was part of a program which brought 740 new industries with plant investment of $450 million to trackside throughout the railroad's 20,000-mile system. This was more than two industries per day.

Conservatively, this systemwide program produced 30,000 new job openings.

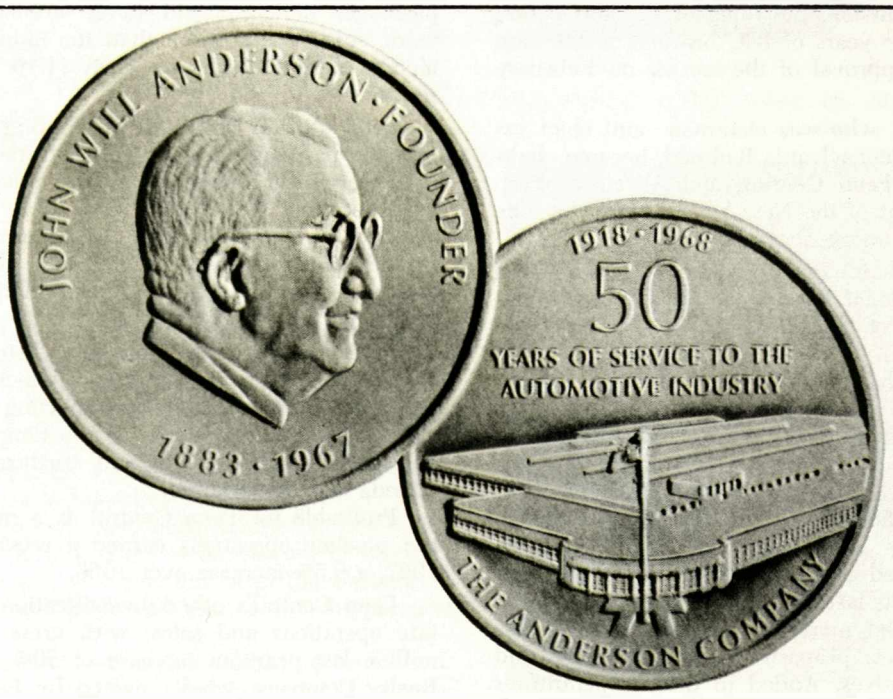
Penn Central's Indiana industrial development program is directed from the railroad's regional offices in Indianapolis and Chicago. Mr. Louthan's Chicago counterpart is Ross D. Spalding.

Penn Central owns approximately 5,000 acres of land available for industrial use in Indiana. In addition, the railroad's industrial development offices carry listings of hundreds of additional acres of municipally-owned or privately-owned land which can be purchased by industries seeking new plant sites.

Seventeen Hoosier industrial parks covering 2,000 acres are provided direct rail service by Penn Central.

The rail industry pioneered the whole field of industrial development, beginning almost from its inception in the mid-1800s to promote new right-of-way industry as one of its main avenues to business development. Most roads began establishing separate industrial development departments prior to World War II.

Samuel H. Hellenbrand is vice president-industrial development and real estate for Penn Central. Vincent J. Floyd and Otto W. Pongrace direct the industrial development program, each having the title of director – industrial development. IB&I■



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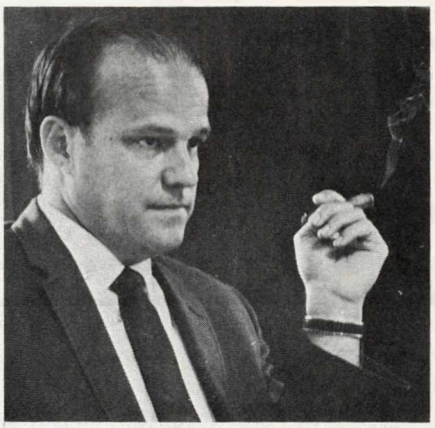
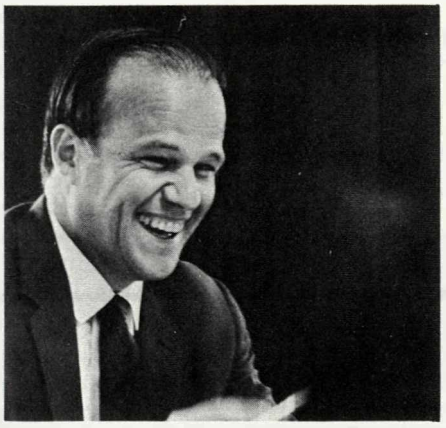
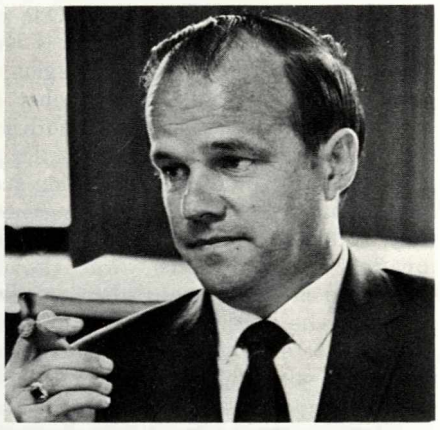


INTERVIEWING R. G. FLANNERY . . . . .



VICE PRESIDENT – SYSTEMS DEVELOPMENT . . .



FOR PENN CENTRAL TRANSPORTATION COMPANY

tough job for a Hoosier

Indiana-born Mike Flannery typifies new breed of management in railroading

GONE FROM THE American railroad scene is the quaint era of steam locomotives, the eye-shaded station agent clicking out train orders on a telegrapher's key and brakemen riding freight cars cowboy-style down the "hump." Casey Jones was the hero of that age.

Railroading 1968 is super-sophisticated. You run a railroad today with centralized traffic control, pushbuttons, closed circuit TV, computers, automatic switches and retarders, radar detectors, photo-electric beams, radio, microwave and walkie-talkies. Today's diesel giants overshadow and outperform their steam predecessors. And the personification of this renaissance of railroading at the executive level is a 44-year-old Hoosier, Robert G. (Mike) Flannery, vice president-systems development for Penn Central, the world's largest transportation company.

Casey Jones was smoke begrimed and hell-bent.

Purdue-educated Mike Flannery, whose hometown is Washington, Ind., is cool, smooth, articulate and knowledgeable – typical of railroading's "new breed" management.

When the former Pennsylvania and New York Central railroads were merged last February to form Penn Central, Flannery was selected for one of the toughest jobs. His assignment was to mesh and coordinate the huge systems of computers, communications and data processing equipment of the merger partners.

Consider the immensity of this task with respect to just one item alone – telephones. There are more than 20,000 phones interconnected over PC-leased and company lines reaching into 14 states and two provinces of Canada.

Or the complexity. Each time a freight car moves over any portion of Penn Central's 40,000 miles of track, that movement is recorded by computer to facilitate car tracing for freight customers. There are thousands of these movements daily.

Or the sophisticated equipment. PC has experimented with videotape replay at its Big Four Yard at Avon, Indiana, and has installed it permanently in its new $29 million Alfred E. Perlman Yard, to be dedicated this month at Selkirk, N.Y.

Yard clerks who occasionally have to monitor car numbers of two incoming trains simultaneously via closed circuit TV will now monitor one train "live" and tape the other for replay later.

This is "workin' on the railroad" late 20th century style.

INDIANA IS A mainline state on the vast Penn Central system and as such it abounds in high speed rail technology and equipment.

Indiana and New York are the only two states where Penn Central owns and operates two multi-million dollar automated electronic freight yards.

PC's two pushbutton yards on Hoosier soil are the previously mentioned Big Four Yard at Avon, which is 12 miles west of Indianapolis, and Robert R. Young Yard at Elkhart.

Design and programming of the super-swift communications and data processing equipment that make these and other similar yards tick are Hoosier Mike Flannery's specialty.

Flannery has had a diverse career in railroading and therefore is well grounded in all the industry's facets and fundamentals. He began service in the former New York Central's engineering department at Springfield, Ohio, in 1948, became a top-level operating executive and now is concentrating on the cybernetics side of the business. He was graduated from Purdue in 1947 with a B.S. degree in Civil Engineering.

Flannery served successively as general manager of the former New York Central's Northern, Western and Eastern Districts and then was promoted to assistant vice president-transportation.

INDIANA BUSINESS & INDUSTRY asked the Indiana-born Penn Central executive for his views on several important questions relating to railroading:

Q. In the field of systems development what is imminent or in sight in the State of Indiana?

A. High speed data processing and communications are, of course, vital to railroading. One of our first major post-merger projects has been establishment of re-

gional data processing centers. One of these is being established in Indianapolis, which is headquarters for Penn Central's four-state Southern Region. This center, which will begin operation about October 1, will process payrolls for approximately 8,500 Southern Region employees and collect and process data on freight accounts receivable, demurrage charges, operating statistics and other regional matters. The Indianapolis center will be computerized and connected by tape-fed teletype to system headquarters in Philadelphia. After the regional payrolls are processed in Indianapolis, they will be teletyped to Philadelphia where additional computers will print paychecks in a matter of minutes. Our Indianapolis computer will be equipped with a printing unit capable of producing 1,100 lines per minute for tape transmission.

This is just one facet of our systems program. Prior to merger, both merger partners, the former Pennsylvania and New York Central railroads, had sophisticated computer systems for tracing movement of individual freight cars. These systems are now being consolidated and standardized. Car tracing is an important customer service. A customer in Indianapolis wants to know the progress of his carload shipment to Boston. He calls our Indianapolis freight service center, the car number is teletyped to our system computer center and instantly the car's location is determined and this information relayed to the coustomer who is still on the phone.

Q. We have talked with some railroad people who seem to agree that one major change following the merger is increased "paperwork" or possibly an increase in this particular work load because of combining of policies. Can you comment on this?

A. Inevitably in any merger the size of ours, there will be temporary increase in paperwork. However, the purpose of the merger is to eliminate this duplication and the long range result will be much less paperwork.

Q. What is the merger expected to do to total employment in the State of Indiana?

A. There will be fluctuations both up and down, depending on the specific location. There will be some increase, for instance, in the Indianapolis area. Our new data processing center will hire about 60 new employees. At other locations there may be decreases in employment.

Q. Will some tracks be abandoned in the combining of resources of the Pennsy and NYC? Will more be built soon?

A. As Penn Central continues to improve its signal system and efficiency of train movements with installation of more Centralized Traffic Control, some sections of dual track may be reduced to single track. However, service along any route now served cannot be abandoned without authority from the Interstate Commerce Commission. Centralized Traffic Control is a remote control method of guiding train movements that produces maximum track efficiency, permitting a single track to handle the traffic which previously required dual tracks. Penn Central is programming for more CTC and this in turn will permit reduction of dual track to single track.

Q. How will train service for the Indiana industrialist be bettered?

A. In a number of ways. Consolidation of freight terminals formerly operated separately by the New York Central and Pennsylvania will reduce intermediate switching and speed freight deliveries. The first Penn Central terminal consolidation in Indiana was at Jeffersonville. The consolidated terminal headquarters is now located in the former Pennsylvania yard just east of Interstate 65. Terminals at Indianapolis and Terre Haute have also been consolidated.

Indiana industrialists will also benefit from Penn Central's larger equipment pool.

More direct routing is another service improvement resulting from merger. Coal from Southern Indiana is now moving over a shorter route to Indianapolis with a savings of approximately two days' shipping time. One of the first track connections of PRR and NYC main lines was at Terre Haute, increasing flexibility of freight operations between Indianapolis and St. Louis.

Q. How does Indiana's combined facilities (yards, trains, tracks, equipment) compare in size and newness to the other major Penn Central operating states?

A. Indiana has some of the best facilities and equipment on the Penn Central. One of the largest freight yards in the world is PC's Robert R. Young Yard at Elkhart, which has a freight capacity of 7,800. Slightly smaller, but newer is Big Four Yard at Avon, west of Indianapolis. Big Four Yard is presently being expanded at a cost of $3 million.

Q. What types of futures are there at Penn Central for young men who are interested in the railroad industry? What jobs might attract the high school graduate? . . . those further trained or educated?

A. The future in railroading with Penn Central is exciting and challenging. For the college graduate, there are opportunities in accounting or finance, marketing, sales and operations. The latter includes positions in transportation, civil, mechanical and industrial engineering. Graduates with degrees in transportation, business administration, civil and mechanical engineering are sought, but a liberal arts degree in almost any field is sufficient if the job applicant has an interest in transportation as a career.

For the technically skilled, there are opportunities in shopcraft positions such as carman, machinist, electrician or diesel mechanic.

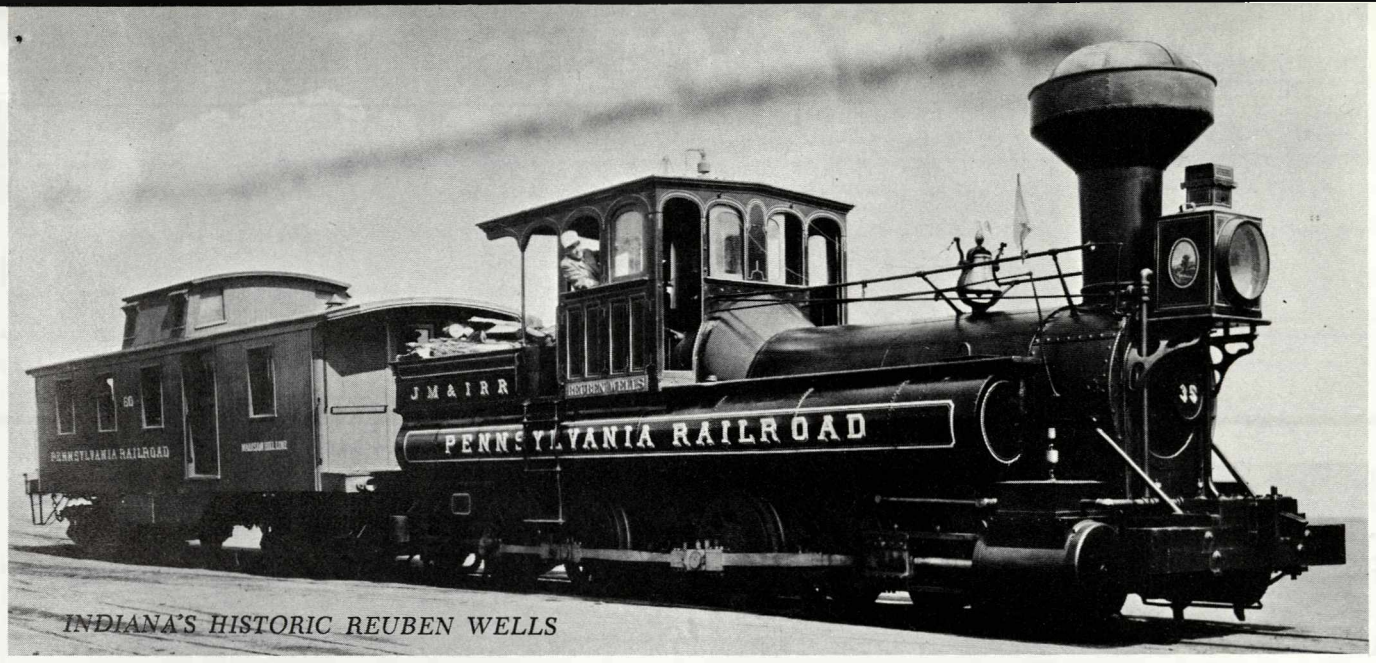
There are also frequently openings for train and engine crew employees.

Penn Central's maintenance of way department provides an opportunity for trackmen who desire advancement. Many become machine operators and foremen.

Information on job openings can be obtained by contacting Penn Central's regional personnel offices in Indianapolis or Chicago.

Q. What has been the most satisfying aspects of your particular positions in the railroad industry? Can you reminisce to some extent about your early youth in Washington pertaining to the railroad, and how you first became interested in railroading?

A. Well, as you know, Washington, Indiana, is a "railroad town." It was a division headquarters for the B&O and like all kids I was fascinated by trains and had a good opportunity to watch them operate. I took civil engineering at Purdue with a yen to get in the construction business, but I guess that boyhood yearning to become a railroader reasserted itself when I took a part-time summer job with the former New York Central engineering department at Springfield, Ohio, to help pay my way through Purdue. From there on a career in railroading was virtually automatic. There are a lot of things I like about railroading, but the most important of these is the challenge of change. Railroading is a rapidly-changing industry, becoming more sophisticated day by day. Each day is different. You continually progress and monotony is nonexistent. This, I believe, is the prime attraction that railroading today has for the youth of America.



INDIANA'S HISTORIC REUBEN WELLS

Indiana railroad history linked to Penn Central

EARLY HISTORY of railroading in Indiana — written in seemingly radical ideas, musclepower, defeat and success, in fire and in blood — is in most part linked to Penn Central through the pioneer railroads that have emerged as a part of the Penn Central system.

Chaptered in that history are: The steepest railroad grade in the United States and the men and machines that mastered it — a near-legendary Confederate army hero, whose forays into Northern territory left scars in Southern Indiana — one of the first train robberies in the world, an ill-fated one for the bandits whose ultimate executioners caught up with them by using rail transportation — an experimental railroad with a horse-drawn car, the first in the state, which did not grow but did introduce the railroad to the backwoodsmen who built Indiana into one of the nation's greatest rail centers and industrial states.

Shelbyville in 1833 and 1834 was the scene of the first actual railroad construction in Indiana. A one-and-a-quarter-mile stretch of rail track was built to promote the idea of railroading in Indiana and probably to find out how much construction costs would run. The region was remote and there was no way to get a locomotive to Shelbyville; but a car was built, a horse attached and 600 Hoosiers had their first "train ride" on July 4, 1834, on wooden rails with strap iron nailed to the upper edge. No one has since claimed it a successful operation but it was a "first" in Indiana railroading.

First operating locomotive in the state was one called the Elkhorn, a small ten-tonner brought from Kentucky for the opening of the first successful railroad in Indiana, the Madison and Indianapolis Railroad. The Elkhorn was barged up the river from Louisville, and oxen dragged it to the top of the Madison hill in 1838.

The oxen drivers at that time could not have guessed they were mastering a hill that was to become and remain the steepest railroad incline in the nation. By 1841, the tracks were extended down the hill into Madison and to the river, a 7,012-foot cut with a 5.9% incline, sliced through solid rock that was 40 to 125 feet deep. Some of the stone from the huge "cut" was used to build St. Michael's Catholic Church in Madison, and it is unrecorded history that the iron-muscled, brawling Irish laborers who cut away the hill could be handled only by their foreman, a Presbyterian Church elder from nearby Scipio.

Train cars were first pulled up the Madison grade by horses, eight to a car, and eased down the incline by gravity and individual car brakes. Seven years later a cogwheel system, with a rackrail in the center of the track, helped engines make the grade.

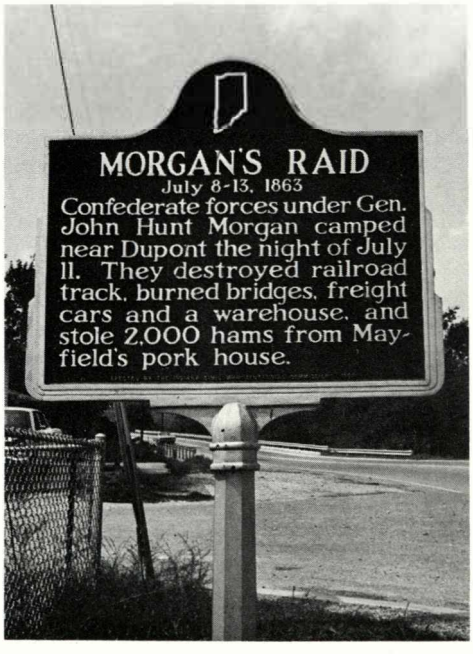
Subsequently, in 1866 the Madison & Indianapolis Railroad, which had been renamed the Indianapolis & Madison Railroad, was merged with the Jeffersonville & Indianapolis Railroad to form the Jeffersonville, Madison & Indianapolis line — better known as the JM&I.

Then came the famous "Reuben Wells".

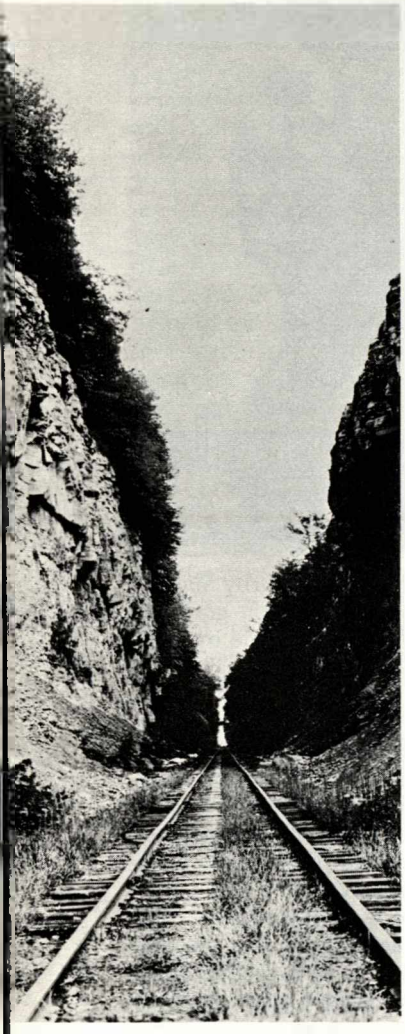
The most powerful locomotive in the world in 1868, the historic Indiana woodburner, at 55 tons, was the only locomotive capable of climbing the Madison incline under its own steam. It remained king until 1898 when replaced by coal-burning steam engines.

The Reuben Wells, named after its designer, a master mechanic in the Jeffersonville shops of the Jeffersonville, Madison & Indianapolis Railroad, has been completely restored and given to the Children's Museum of Indianapolis by Penn Central.

Otto N. Frenzel, chairman of the board of Merchants National Bank, Indianapolis, and a Penn Central director,


MORGAN'S RAID
July 8-13, 1863
Confederate forces under Gen. John Hunt Morgan camped near Dupont the night of July 11. They destroyed railroad track, burned bridges, freight cars and a warehouse, and stole 2,000 hams from Mayfield's pork house.

HISTORICAL MARKER AT DUPONT



INDIANA'S
FIRST RAILROAD
An experimental two mile road was completed to this point on July 4, 1834. A horse-drawn car carried Hoosiers on a railroad for the first time.

HISTORIC MARKER AT SHELBYVILLE

STEEP MADISON GRADE

and Thomas M. Billings, an official of Indiana Bell Telephone Company, are credited by museum officials as being mainly responsible for returning the famous locomotive "home".

The Penn Central still runs an occasional train down the Madison incline – still the steepest in the U.S.

The JM&I was also a victim of history. Southern Indiana was probably as South-oriented as many of the states that fought with the Confederacy in the Civil War, and it is ironic that the only conflict on Indiana soil was Rebel General John Hunt Morgan's raids on that part of the state in 1863. General Morgan and more than 2,000 Southern cavalrymen crossed the Ohio River from Kentucky into Harrison County, looting and destroying property in Corydon, Salem, Dupont and Versailles. He finally moved into Ohio where he was taken prisoner by Union troops. Morgan's Raiders burned the JM&I railroad bridge and rails at Dupont and took 2,000 hams from a local meat packing house.

The same railroad was once a vehicle for a saga of crime and outside-the-law retribution that rivaled the most famous shootouts of the Old West. The infamous Reno gang pulled off one of the first train robberies in history in 1868, boarding a JM&I train south of Seymour, looting the baggage car of $96,000 as the train passed through the community. Seymour residents finished this wild chapter of train robbery history in a series of vigilante hangings that wiped out the Reno brothers and their gang. On one occasion the vigilantes rode the JM&I into Jeffersonville to take some of the members forcibly from the jail to the nearest hanging tree. IB&I■

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